

Radiated Spurious Emission

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.10
Date March 19, 2024
Temperature / Humidity 20 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5530 MHz with BT Hopping On 3DH5

(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.	5460.000	PK	52.21	33.22	15.22	45.68	3.31	58.28	73.9	15.6	400	57	VBW: 4.3 kHz
Hori.	5460.000	AV	41.46	33.22	15.22	45.68	3.31	47.53	53.9	6.3	400	57	
Vert.	5460.000	PK	52.13	33.22	15.22	45.68	3.31	58.20	73.9	15.7	377	7	VBW: 4.3 kHz
Vert.	5460.000	AV	41.25	33.22	15.22	45.68	3.31	47.32	53.9	6.5	377	7	

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 - 10 GHz : $20\log(4.39\text{ m} / 3.0\text{ m}) = 3.31\text{ dB}$

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

(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.	5470.000	PK	51.87	33.25	15.22	45.68	3.31	57.97	-37.25	-27.0	10.2	400	57	
Vert.	5470.000	PK	52.26	33.25	15.22	45.68	3.31	58.36	-36.86	-27.0	9.8	377	7	

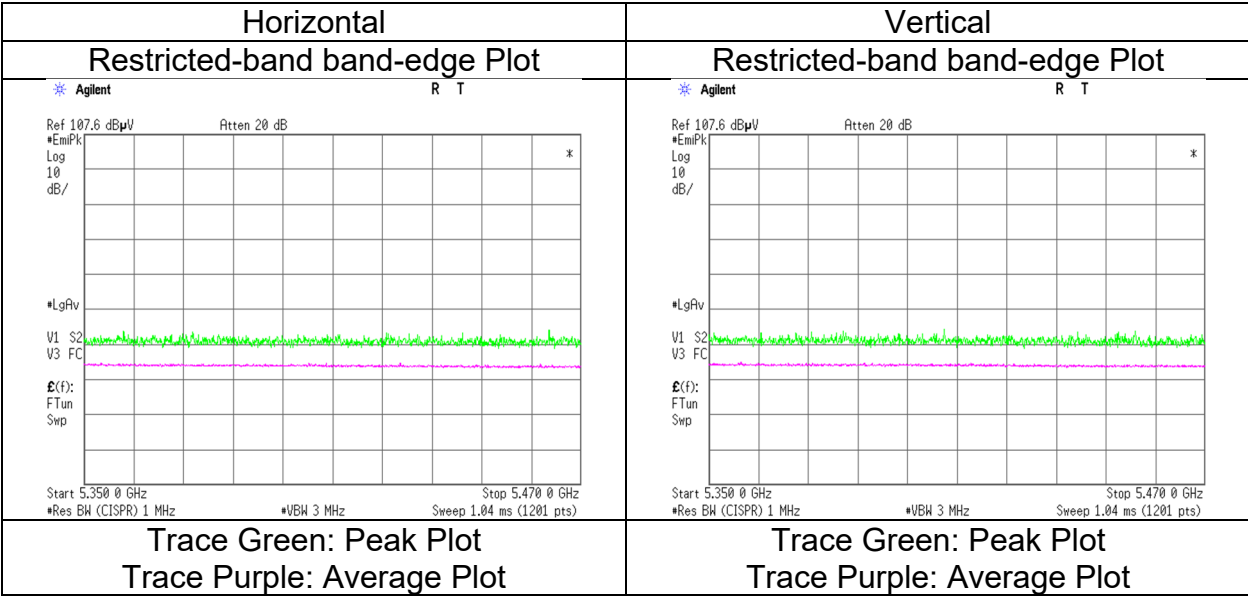
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

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

Distance factor : 1 GHz - 10 GHz : $20\log(4.39\text{ m} / 3.0\text{ m}) = 3.31\text{ dB}$

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.10
Date	March 19, 2024
Temperature / Humidity	20 deg. C / 39 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-80 5610 MHz with BT Hopping On 3DH5

(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.]	Remarks
Hori.	5725.000	PK	51.73	33.69	15.38	45.70	3.31	58.41	-36.81	-27.0	9.8	388	65	
Vert.	5725.000	PK	52.06	33.69	15.38	45.70	3.31	58.74	-36.48	-27.0	9.4	386	5	

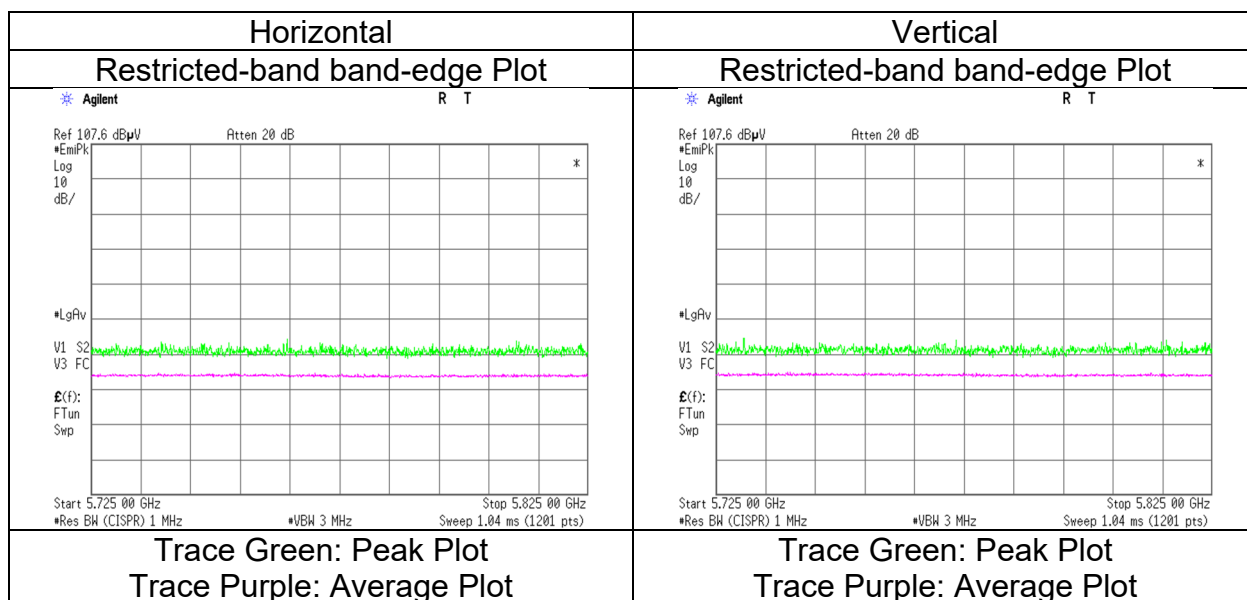
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

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

Distance factor : 1 GHz - 10 GHz : $20\log (4.39 \text{ m} / 3.0 \text{ m}) = 3.31 \text{ dB}$

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



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

Radiated Spurious Emission

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.10
Date March 19, 2024
Temperature / Humidity 20 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5775 MHz with BT Hopping On 3DH5

(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	52.08	33.51	15.35	45.73	3.31	58.52	-36.70	-27.0	9.7	400	64	
Hori.	5700.000	PK	52.86	33.61	15.37	45.72	3.31	59.43	-35.79	10.0	45.7	400	64	
Hori.	5720.000	PK	52.48	33.67	15.38	45.70	3.31	59.14	-36.08	15.6	51.6	400	64	
Hori.	5725.000	PK	53.00	33.69	15.38	45.70	3.31	59.68	-35.54	27.0	62.5	400	64	
Hori.	5850.000	PK	49.64	34.23	15.45	45.53	3.31	57.10	-38.12	27.0	65.1	400	64	
Hori.	5855.000	PK	50.41	34.26	15.45	45.52	3.31	57.91	-37.31	15.6	52.9	400	64	
Hori.	5875.000	PK	50.30	34.38	15.47	45.50	3.31	57.96	-37.26	10.0	47.2	400	64	
Hori.	5925.000	PK	51.12	34.67	15.50	45.46	3.31	59.14	-36.08	-27.0	9.0	400	64	
Vert.	5650.000	PK	51.73	33.51	15.35	45.73	3.31	58.17	-37.05	-27.0	10.0	383	355	
Vert.	5700.000	PK	52.05	33.61	15.37	45.72	3.31	58.62	-36.60	10.0	46.6	383	355	
Vert.	5720.000	PK	52.59	33.67	15.38	45.70	3.31	59.25	-35.97	15.6	51.5	383	355	
Vert.	5725.000	PK	55.84	33.69	15.38	45.70	3.31	62.52	-32.70	27.0	59.7	383	355	
Vert.	5850.000	PK	50.05	34.23	15.45	45.53	3.31	57.51	-37.71	27.0	64.7	383	355	
Vert.	5855.000	PK	50.35	34.26	15.45	45.52	3.31	57.85	-37.37	15.6	52.9	383	355	
Vert.	5875.000	PK	50.69	34.38	15.47	45.50	3.31	58.35	-36.87	10.0	46.8	383	355	
Vert.	5925.000	PK	51.41	34.67	15.50	45.46	3.31	59.43	-35.79	-27.0	8.7	383	355	

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)

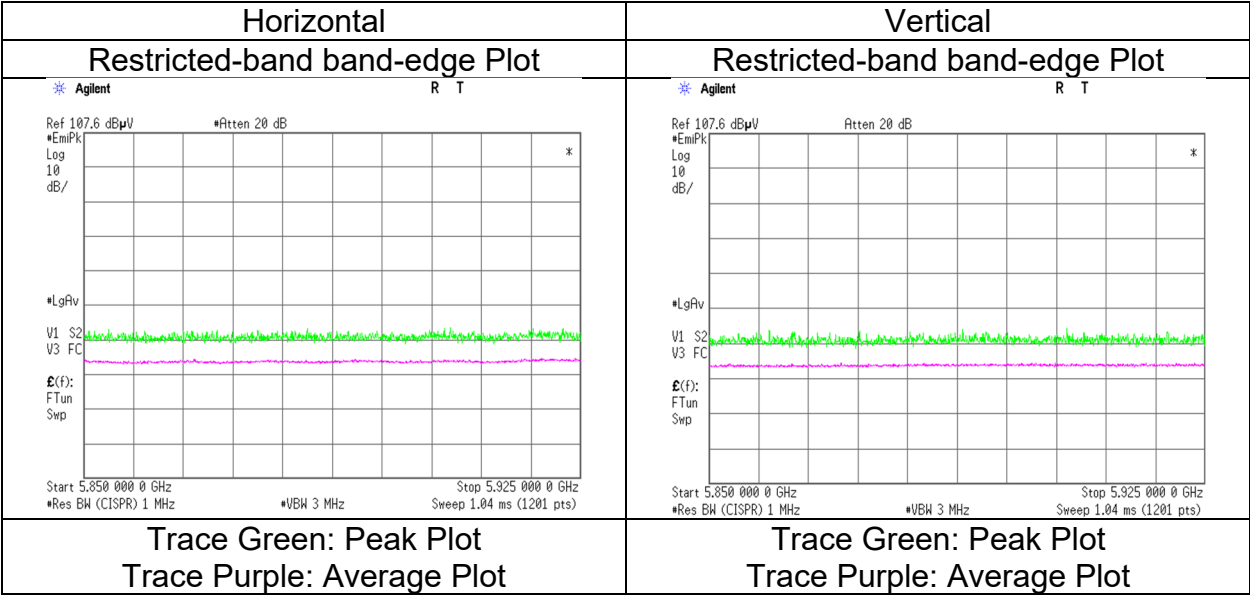
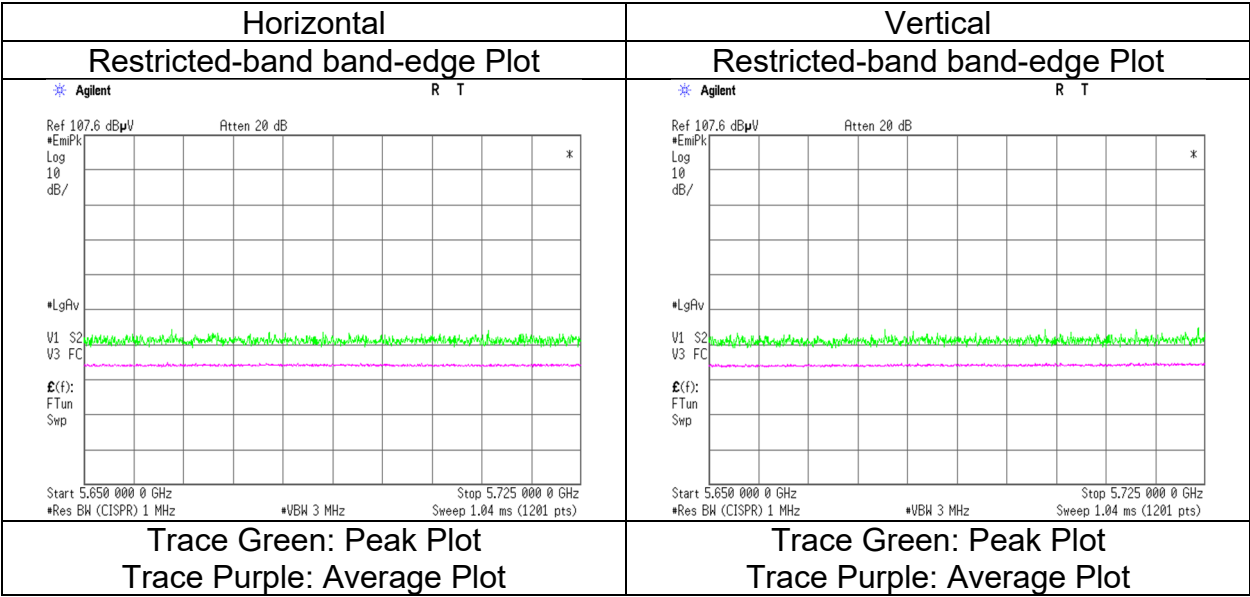
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (4.39 m / 3.0 m) = 3.31 dB

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

Radiated Spurious Emission

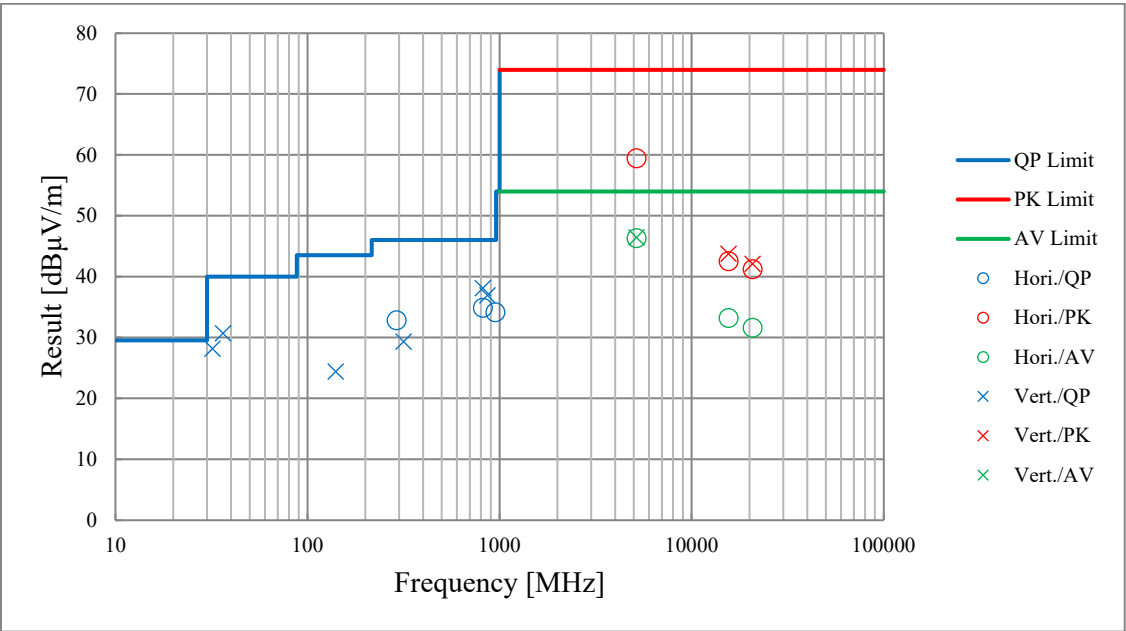
Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.10
Date	March 19, 2024
Temperature / Humidity	20 deg. C / 39 % RH
Engineer	Hiromitsu Tanabe
	(1 GHz to 6.4 GHz)
Mode	Tx 11ac-80 5775 MHz with BT Hopping On 3DH5



* 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
(Plot data, Worst case mode for Maximum Conducted Output Power)

Test place	Kashima EMC Lab.					
Semi Anechoic Chamber	No.11	No.10	No.10	No.11	No.11	No.11
Date	March 13, 2024	March 18, 2024	March 18, 2024	March 12, 2024	March 12, 2024	March 12, 2024
Temperature /	20 deg. C /	21 deg. C /	21 deg. C /	18 deg. C /	18 deg. C /	18 deg. C /
Humidity	38 % RH	42 % RH	42 % RH	41 % RH	41 % RH	41 % RH
Engineer	Kazuhiro Ando	Hiromitsu Tanabe	Hiromitsu Tanabe	Kazuhiro Ando	Kazuhiro Ando	Kazuhiro Ando
	(30 MHz to 1 GHz)	(1 GHz to 6.4 GHz)	(6.4 GHz to 10 GHz)	(10 GHz to 18 GHz)	(18 GHz to 26.5 GHz)	(26.5 GHz to 40 GHz)
Mode	Tx 11a 5180 MHz with BT Hopping On 3DH5					



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

Radiated Spurious Emission

Test place	Kashima EMC Lab.					
Semi Anechoic Chamber	No.11	No.11	No.11	No.11	No.11	No.11
Date	February 23, 2024	February 16, 2024	February 22, 2024	February 22, 2024	February 22, 2024	February 23, 2024
Temperature / Humidity	19 deg. C / 42 % RH	23 deg. C / 39 % RH	20 deg. C / 41 % RH	20 deg. C / 41 % RH	20 deg. C / 41 % RH	19 deg. C / 42 % RH
Engineer	Hiromitsu Tanabe	Hiromitsu Tanabe	Hiromitsu Tanabe	Hiromitsu Tanabe	Hiromitsu Tanabe	Hiromitsu Tanabe
Mode	(30 MHz to 1 GHz) (1 GHz to 6.4 GHz) (6.4 GHz to 10 GHz) (10 GHz to 18 GHz) (18 GHz to 26.5 GHz) (26.5 GHz to 40 GHz)					
	Tx 11a 5180 MHz with BT LE 2M-PHY 2440 MHz					

(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.	318.299	QP	44.00	13.99	7.71	31.94	0.00	33.76	46.0	12.2	148	305	
Hori.	947.831	QP	30.30	23.96	10.06	30.96	0.00	33.36	46.0	12.6	152	214	
Hori.	5150.000	PK	52.53	32.60	15.04	45.81	2.26	56.62	73.9	17.2	400	22	
Hori.	15540.000	PK	45.49	38.35	9.99	41.97	-9.54	42.32	73.9	31.5	150	0	Floor noise
Hori.	20720.000	PK	44.59	-3.86	10.43	0.00	-9.54	41.62	73.9	32.2	150	188	*1)
Hori.	5150.000	AV	41.12	32.60	15.04	45.81	2.26	45.21	53.9	8.6	400	22	VBW:2.2 kHz
Hori.	15540.000	AV	35.68	38.35	9.99	41.97	-9.54	32.51	53.9	21.3	150	0	Floor noise
Hori.	20720.000	AV	34.81	-3.86	10.43	0.00	-9.54	31.84	53.9	22.0	150	188	VBW:2.2 kHz,*1)
Vert.	31.855	QP	42.90	12.55	5.68	32.18	0.00	28.95	40.0	11.0	100	0	
Vert.	36.270	QP	45.90	12.91	5.74	32.17	0.00	32.38	40.0	7.6	100	256	
Vert.	170.000	QP	37.60	12.87	6.89	32.06	0.00	25.30	43.5	18.2	100	180	
Vert.	314.486	QP	41.70	13.90	7.69	31.94	0.00	31.35	46.0	14.6	100	166	
Vert.	816.000	QP	37.60	22.62	9.63	31.75	0.00	38.10	46.0	7.9	141	196	
Vert.	947.594	QP	29.40	23.95	10.06	30.96	0.00	32.45	46.0	13.5	156	302	
Vert.	5150.000	PK	52.98	32.60	15.04	45.81	2.26	57.07	73.9	16.8	291	0	
Vert.	15540.000	PK	46.39	38.35	9.99	41.97	-9.54	43.22	73.9	30.6	150	0	Floor noise
Vert.	20720.000	PK	44.86	-3.86	10.43	0.00	-9.54	41.89	73.9	32.0	177	354	*1)
Vert.	5150.000	AV	41.50	32.60	15.04	45.81	2.26	45.59	53.9	8.3	291	0	VBW:2.2 kHz
Vert.	15540.000	AV	35.61	38.35	9.99	41.97	-9.54	32.44	53.9	21.4	150	0	Floor noise
Vert.	20720.000	AV	35.87	-3.86	10.43	0.00	-9.54	32.90	53.9	21.0	177	354	VBW:2.2 kHz,*1)

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

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

*1) Antenna factor includes amplifier gain

(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.	10360.000	PK	49.02	38.52	8.08	43.12	-9.54	42.96	-52.26	-27.0	25.2	256	50	
Vert.	10360.000	PK	48.31	38.52	8.08	43.12	-9.54	42.25	-52.97	-27.0	25.9	255	355	

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

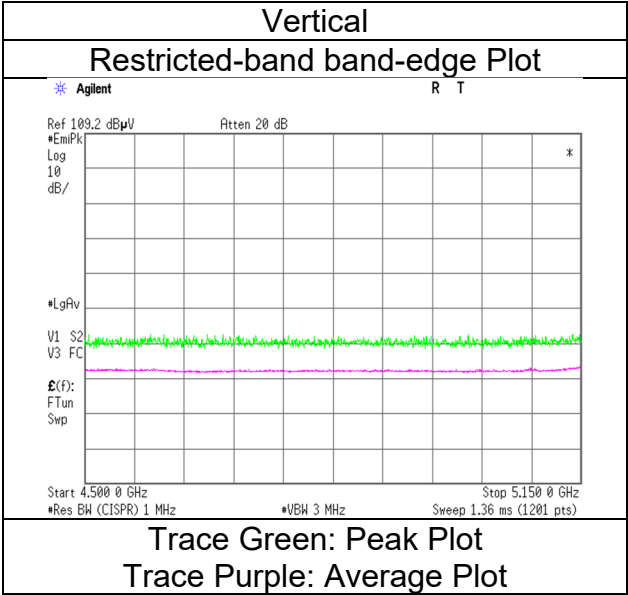
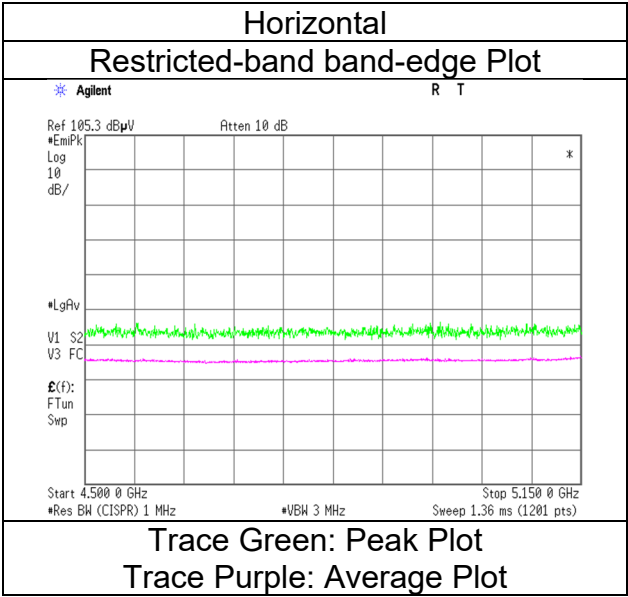
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place
Semi Anechoic Chamber
Date
Temperature / Humidity
Engineer

Mode

Kashima EMC Lab.
No.11
February 16, 2024
23 deg. C / 39 % RH
Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Tx 11a 5180 MHz with BT LE 2M-PHY 2440 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11a 5320 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

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

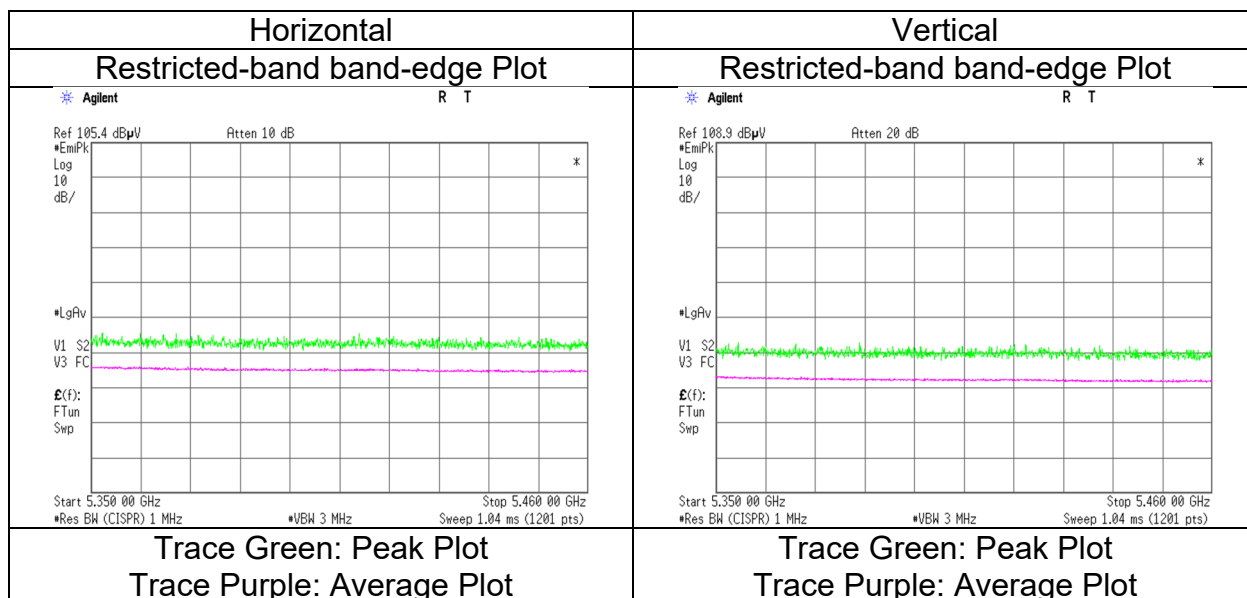
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	51.86	32.99	15.16	45.75	2.26	56.52	73.9	17.3	400	20	VBW:2.2 kHz
Hori.	5350.000	AV	40.13	32.99	15.16	45.75	2.26	44.79	53.9	9.1	400	20	
Vert.	5350.000	PK	51.89	32.99	15.16	45.75	2.26	56.55	73.9	17.3	306	0	VBW:2.2 kHz
Vert.	5350.000	AV	40.47	32.99	15.16	45.75	2.26	45.13	53.9	8.7	306	0	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

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



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Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11a 5500 MHz with BT LE 2M-PHY 2440 MHz

(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.	5460.000	PK	53.36	33.14	15.22	45.68	2.26	58.30	73.9	15.6	400	23	VBW:2.2 kHz
Hori.	5460.000	AV	40.87	33.14	15.22	45.68	2.26	45.81	53.9	8.0	400	23	
Vert.	5460.000	PK	52.47	33.14	15.22	45.68	2.26	57.41	73.9	16.4	363	6	
Vert.	5460.000	AV	41.25	33.14	15.22	45.68	2.26	46.19	53.9	7.7	363	6	

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

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

(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.	5470.000	PK	52.87	33.17	15.23	45.68	2.26	57.85	-37.37	-27.0	10.3	400	23	
Vert.	5470.000	PK	53.16	33.17	15.23	45.68	2.26	58.14	-37.08	-27.0	10.0	363	6	

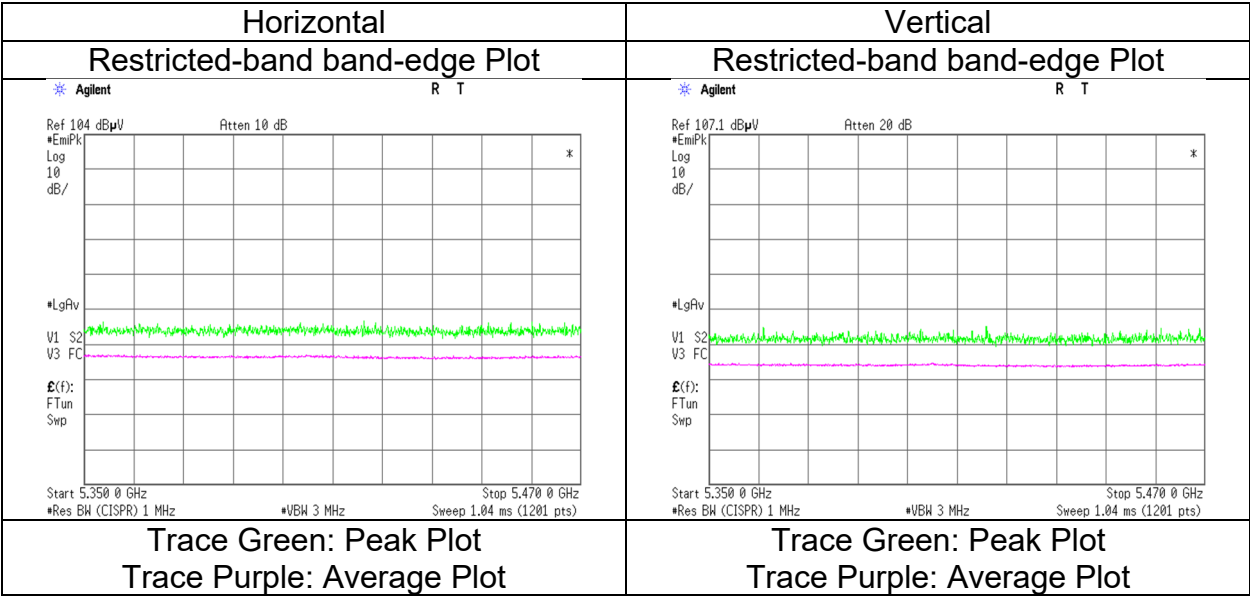
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

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Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11a 5700 MHz with BT LE 2M-PHY 2440 MHz

(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.	5725.000	PK	52.73	33.64	15.39	45.70	2.26	58.32	-36.90	-27.0	9.9	400	0	
Vert.	5725.000	PK	53.36	33.64	15.39	45.70	2.26	58.95	-36.27	-27.0	9.2	376	347	

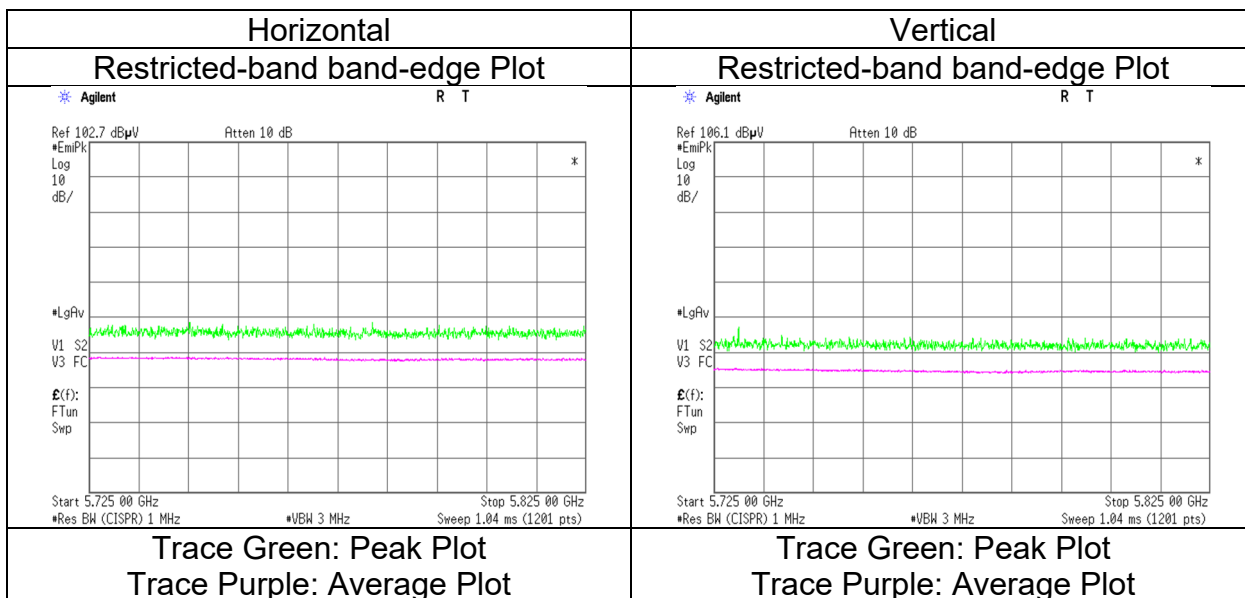
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11a 5745 MHz with BT LE 2M-PHY 2440 MHz

(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	52.09	33.39	15.34	45.73	2.26	57.35	-37.87	-27.0	10.8	400	0	
Hori.	5700.000	PK	53.55	33.53	15.37	45.72	2.26	58.99	-36.23	10.0	46.2	400	0	
Hori.	5720.000	PK	52.41	33.61	15.38	45.70	2.26	57.96	-37.26	15.6	52.8	400	0	
Hori.	5725.000	PK	53.22	33.64	15.39	45.70	2.26	58.81	-36.41	27.0	63.4	400	0	
Vert.	5650.000	PK	52.14	33.39	15.34	45.73	2.26	57.40	-37.82	-27.0	10.8	352	352	
Vert.	5700.000	PK	52.55	33.53	15.37	45.72	2.26	57.99	-37.23	10.0	47.2	352	352	
Vert.	5720.000	PK	53.26	33.61	15.38	45.70	2.26	58.81	-36.41	15.6	52.0	352	352	
Vert.	5725.000	PK	53.21	33.64	15.39	45.70	2.26	58.80	-36.42	27.0	63.4	352	352	

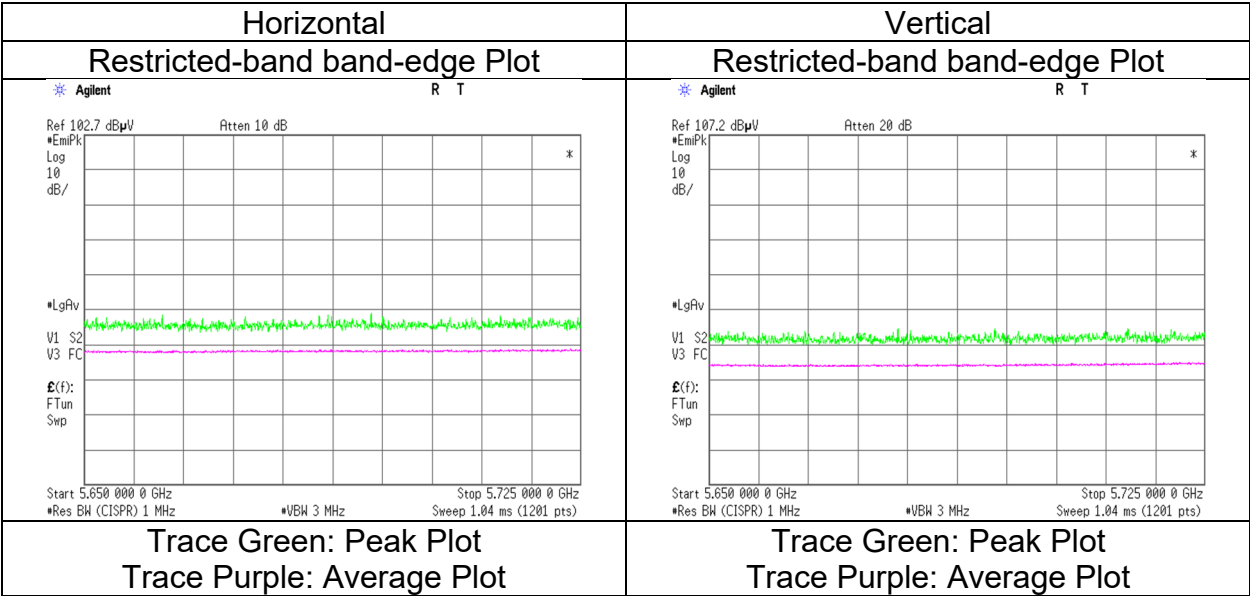
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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.

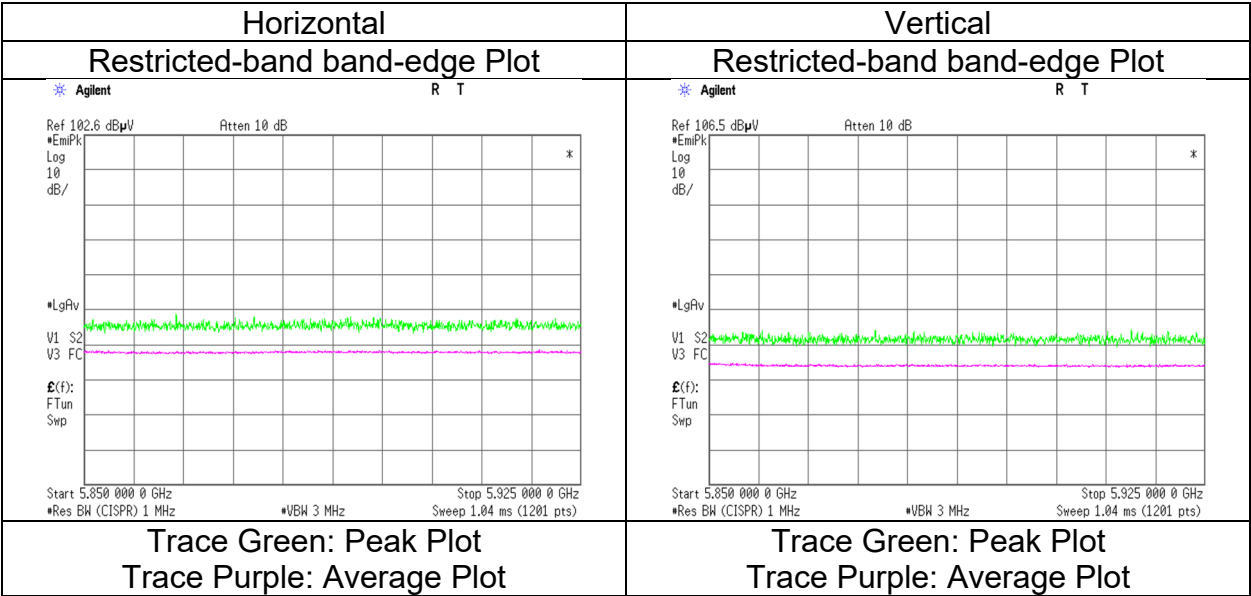
Radiated Spurious Emission

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11a 5825 MHz with BT LE 2M-PHY 2440 MHz

(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	50.33	34.18	15.46	45.53	2.26	56.70	-38.52	27.0	65.5	400	55	
Hori.	5855.000	PK	50.47	34.22	15.46	45.52	2.26	56.89	-38.33	15.6	53.9	400	55	
Hori.	5875.000	PK	50.54	34.36	15.48	45.50	2.26	57.14	-38.08	10.0	48.0	400	55	
Hori.	5925.000	PK	52.13	34.65	15.51	45.46	2.26	59.09	-36.13	-27.0	9.1	400	55	
Vert.	5850.000	PK	50.87	34.18	15.46	45.53	2.26	57.24	-37.98	27.0	64.9	352	0	
Vert.	5855.000	PK	50.88	34.22	15.46	45.52	2.26	57.30	-37.92	15.6	53.5	352	0	
Vert.	5875.000	PK	50.52	34.36	15.48	45.50	2.26	57.12	-38.10	10.0	48.1	352	0	
Vert.	5925.000	PK	53.08	34.65	15.51	45.46	2.26	60.04	-35.18	-27.0	8.1	352	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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB
10 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

Test place
Semi Anechoic Chamber
Date
Temperature / Humidity
Engineer
Mode

Kashima EMC Lab.
No.11
February 16, 2024
23 deg. C / 39 % RH
Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Tx 11ac-20 5180 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

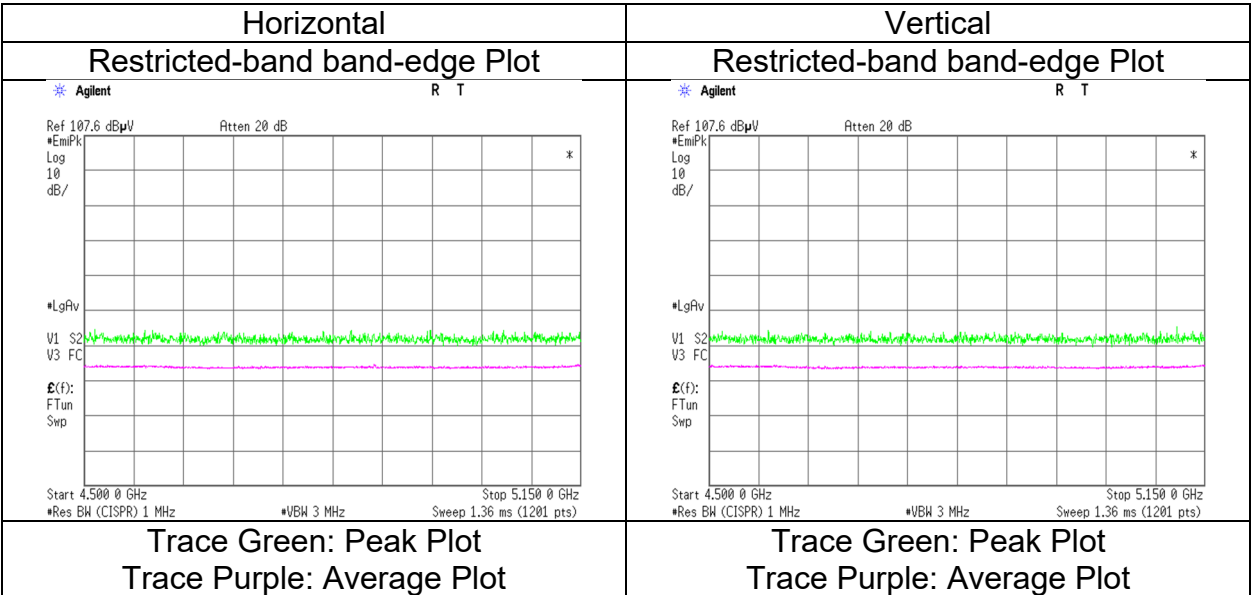
(* PK: Peak, AV: Average, QP: Quasi-Peak)

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	52.21	32.60	15.04	45.81	2.26	56.30	73.9	17.6	400	49	VBW: 2.4 kHz
Hori.	5150.000	AV	40.97	32.60	15.04	45.81	2.26	45.06	53.9	8.8	400	49	
Vert.	5150.000	PK	53.07	32.60	15.04	45.81	2.26	57.16	73.9	16.7	322	0	VBW: 2.4 kHz
Vert.	5150.000	AV	41.03	32.60	15.04	45.81	2.26	45.12	53.9	8.7	322	0	

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB
10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 16, 2024
Temperature / Humidity	23 deg. C / 39 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-20 5320 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

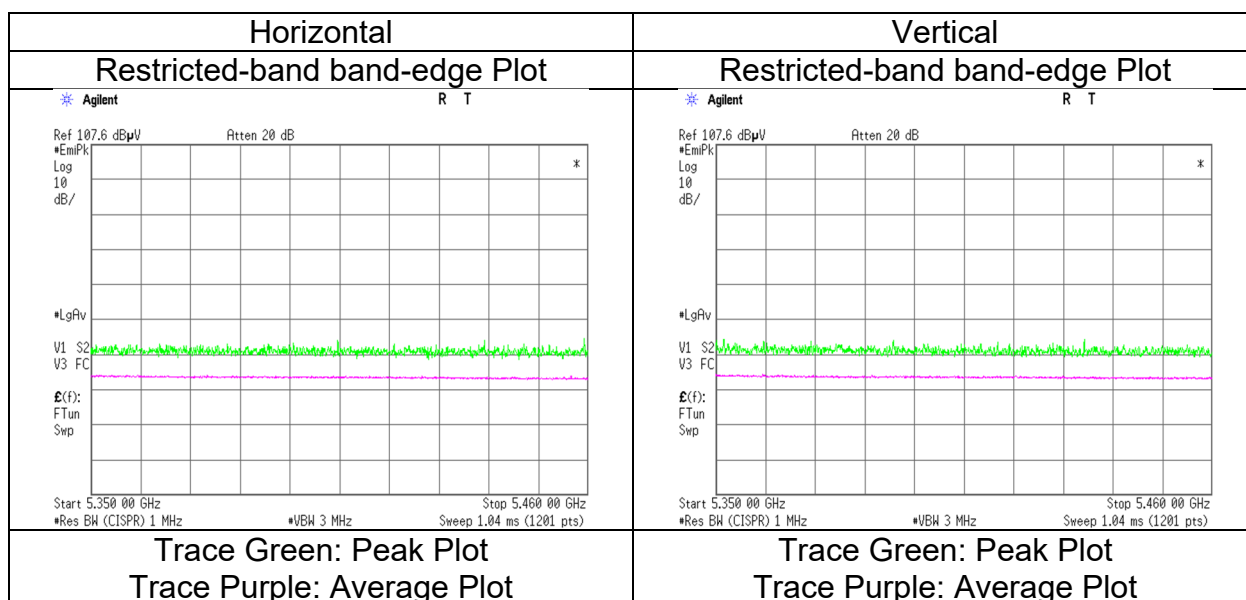
(* PK: Peak, AV: Average, QP: Quasi-Peak)

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	51.52	32.99	15.16	45.75	2.26	56.18	73.9	17.7	400	33	
Hori.	5350.000	AV	39.71	32.99	15.16	45.75	2.26	44.37	53.9	9.5	400	33	VBW: 2.4 kHz
Vert.	5350.000	PK	51.80	32.99	15.16	45.75	2.26	56.46	73.9	17.4	325	0	
Vert.	5350.000	AV	39.77	32.99	15.16	45.75	2.26	44.43	53.9	9.4	325	0	VBW: 2.4 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 - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20 \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-20 5500 MHz with BT LE 2M-PHY 2440 MHz

(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.	5460.000	PK	51.45	33.14	15.22	45.68	2.26	56.39	73.9	17.5	400	55	VBW: 2.4 kHz
Hori.	5460.000	AV	40.59	33.14	15.22	45.68	2.26	45.53	53.9	8.3	400	55	
Vert.	5460.000	PK	52.40	33.14	15.22	45.68	2.26	57.34	73.9	16.5	357	5	VBW: 2.4 kHz
Vert.	5460.000	AV	40.87	33.14	15.22	45.68	2.26	45.81	53.9	8.0	357	5	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

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

(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.	5470.000	PK	51.58	33.17	15.23	45.68	2.26	56.56	-38.66	-27.0	11.6	400	55	
Vert.	5470.000	PK	52.78	33.17	15.23	45.68	2.26	57.76	-37.46	-27.0	10.4	357	5	

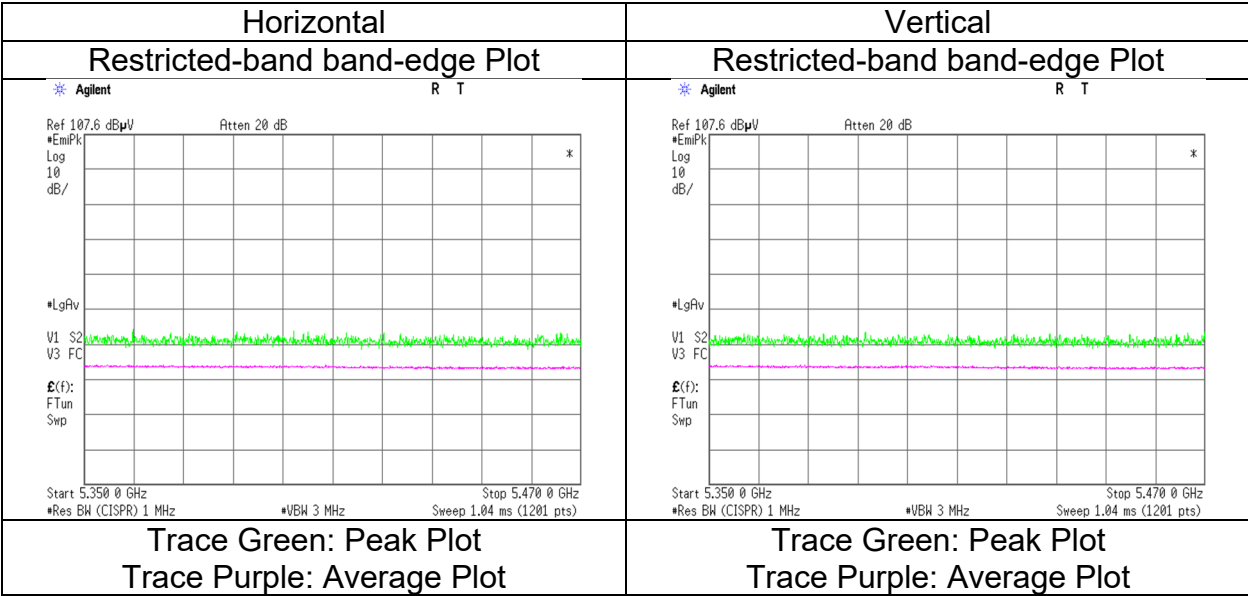
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-20 5700 MHz with BT LE 2M-PHY 2440 MHz

(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.	5725.000	PK	53.06	33.64	15.39	45.70	2.26	58.65	-36.57	-27.0	9.5	400	0	
Vert.	5725.000	PK	52.53	33.64	15.39	45.70	2.26	58.12	-37.10	-27.0	10.1	362	344	

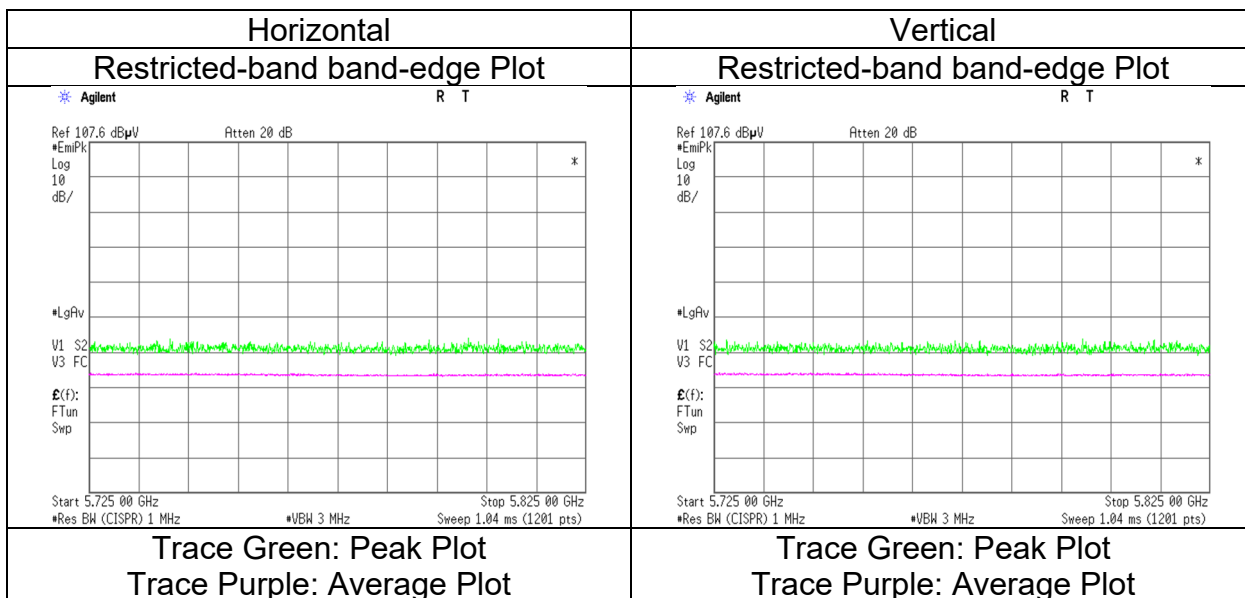
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+Attenuator or Filter)(below 18 GHz) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 16, 2024
Temperature / Humidity 23 deg. C / 39 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11ac-20 5745 MHz with BT LE 2M-PHY 2440 MHz

(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	51.68	33.39	15.34	45.73	2.26	56.94	-38.28	-27.0	11.2	400	0	
Hori.	5700.000	PK	52.61	33.53	15.37	45.72	2.26	58.05	-37.17	10.0	47.1	400	0	
Hori.	5720.000	PK	52.36	33.61	15.38	45.70	2.26	57.91	-37.31	15.6	52.9	400	0	
Hori.	5725.000	PK	52.35	33.64	15.39	45.70	2.26	57.94	-37.28	27.0	64.2	400	0	
Vert.	5650.000	PK	52.52	33.39	15.34	45.73	2.26	57.78	-37.44	-27.0	10.4	351	0	
Vert.	5700.000	PK	52.88	33.53	15.37	45.72	2.26	58.32	-36.90	10.0	46.9	351	0	
Vert.	5720.000	PK	52.79	33.61	15.38	45.70	2.26	58.34	-36.88	15.6	52.4	351	0	
Vert.	5725.000	PK	52.88	33.64	15.39	45.70	2.26	58.47	-36.75	27.0	63.7	351	0	

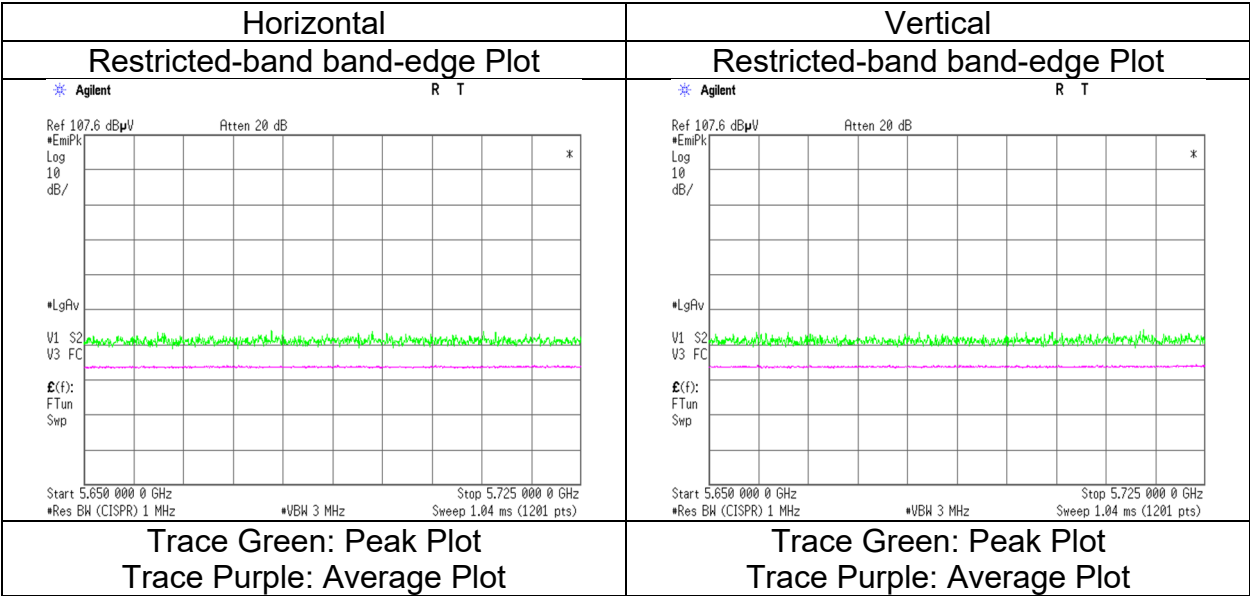
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 19, 2024
Temperature / Humidity 21 deg. C / 41 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11ac-20 5825 MHz with BT LE 2M-PHY 2440 MHz

(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	50.20	34.18	15.46	45.53	2.26	56.57	-38.65	27.0	65.6	369	79	
Hori.	5855.000	PK	50.31	34.22	15.46	45.52	2.26	56.73	-38.49	15.6	54.0	369	79	
Hori.	5875.000	PK	50.96	34.36	15.48	45.50	2.26	57.56	-37.66	10.0	47.6	369	79	
Hori.	5925.000	PK	52.13	34.65	15.51	45.46	2.26	59.09	-36.13	-27.0	9.1	369	79	
Vert.	5850.000	PK	50.45	34.18	15.46	45.53	2.26	56.82	-38.40	27.0	65.4	331	330	
Vert.	5855.000	PK	50.35	34.22	15.46	45.52	2.26	56.77	-38.45	15.6	54.0	331	330	
Vert.	5875.000	PK	50.72	34.36	15.48	45.50	2.26	57.32	-37.90	10.0	47.9	331	330	
Vert.	5925.000	PK	51.79	34.65	15.51	45.46	2.26	58.75	-36.47	-27.0	9.4	331	330	

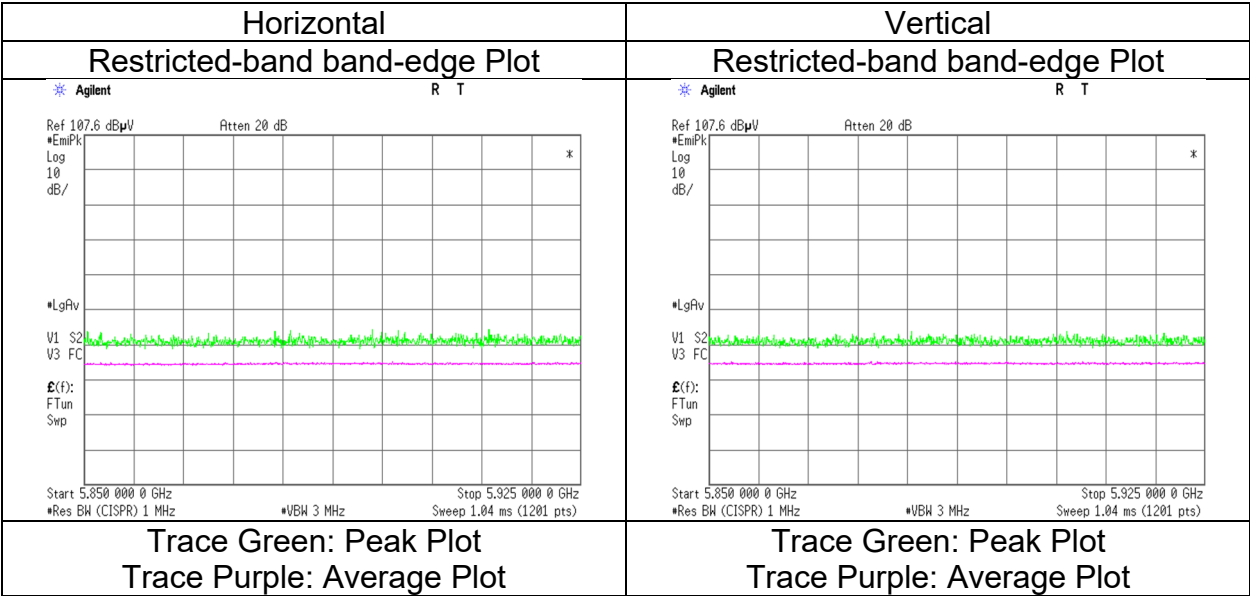
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 19, 2024
Temperature / Humidity	21 deg. C / 41 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11n-40 5190 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

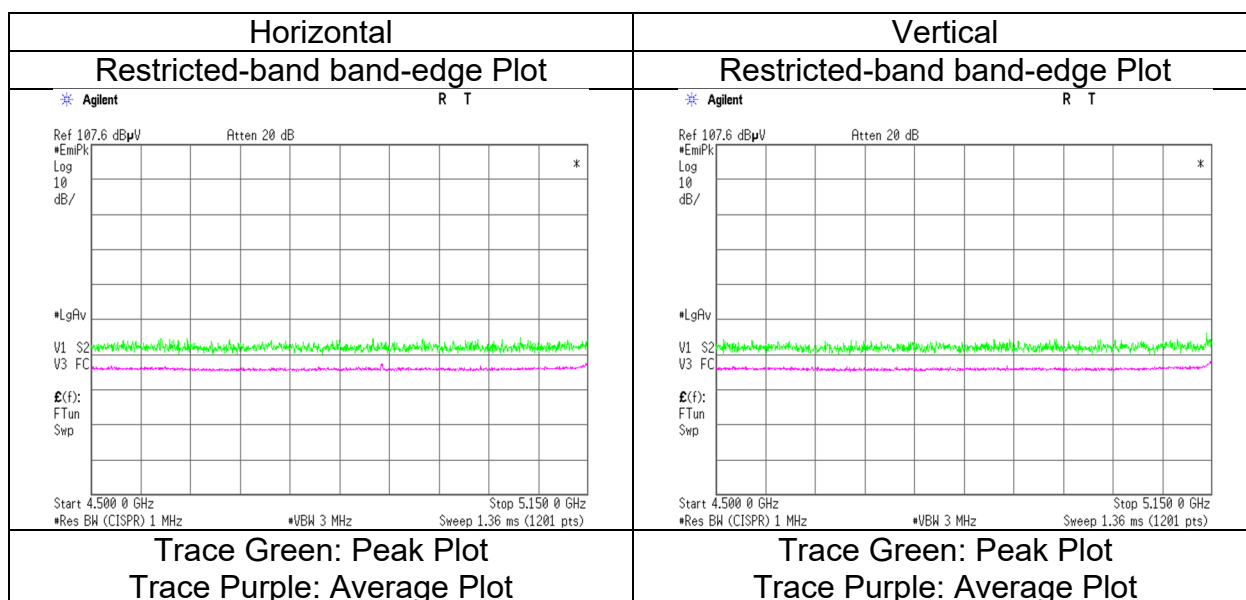
(* PK: Peak, AV: Average, QP: Quasi-Peak)

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	52.90	32.60	15.04	45.81	2.26	56.99	73.9	16.9	325	58	
Hori.	5150.000	AV	43.08	32.60	15.04	45.81	2.26	47.17	53.9	6.7	325	58	VBW: 5.6 kHz
Vert.	5150.000	PK	53.90	32.60	15.04	45.81	2.26	57.99	73.9	15.9	343	0	
Vert.	5150.000	AV	43.66	32.60	15.04	45.81	2.26	47.75	53.9	6.1	343	0	VBW: 5.6 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 - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20 \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 19, 2024
Temperature / Humidity 21 deg. C / 41 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11n-40 5310 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

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

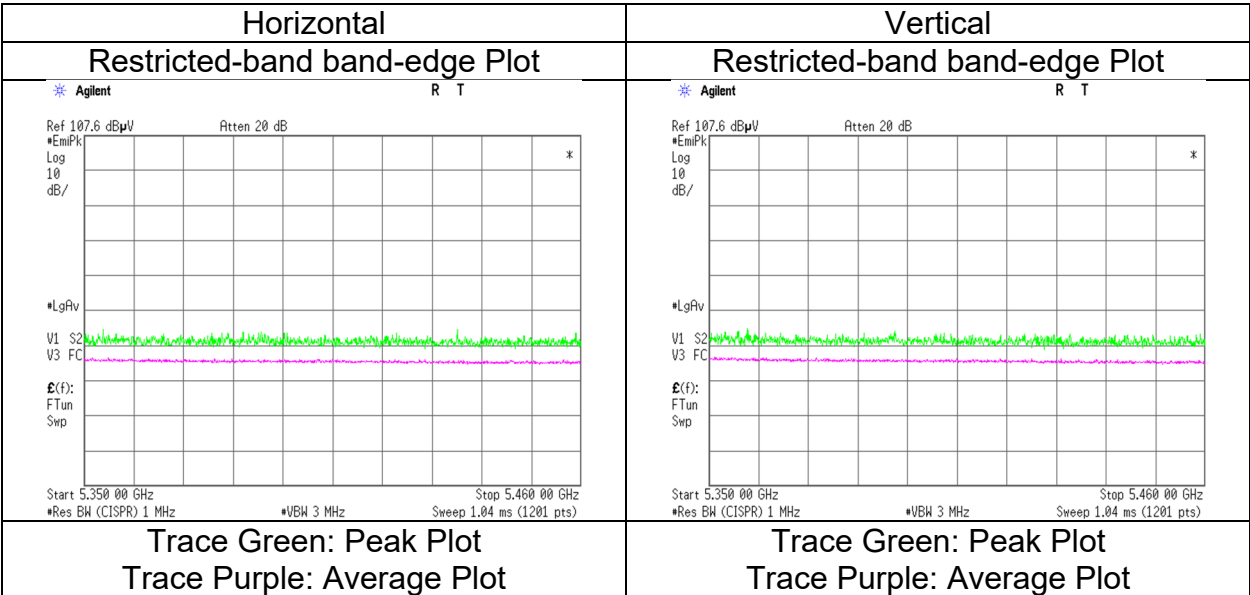
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	51.51	32.99	15.16	45.75	2.26	56.17	73.9	17.7	389	74	VBW: 5.6 kHz
Hori.	5350.000	AV	41.10	32.99	15.16	45.75	2.26	45.76	53.9	8.1	389	74	
Vert.	5350.000	PK	51.14	32.99	15.16	45.75	2.26	55.80	73.9	18.1	277	0	VBW: 5.6 kHz
Vert.	5350.000	AV	41.19	32.99	15.16	45.75	2.26	45.85	53.9	8.0	277	0	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 19, 2024
Temperature / Humidity	21 deg. C / 41 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11n-40 5510 MHz with BT LE 2M-PHY 2440 MHz

(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.	5460.000	PK	51.65	33.14	15.22	45.68	2.26	56.59	73.9	17.3	256	75	
Hori.	5460.000	AV	41.67	33.14	15.22	45.68	2.26	46.61	53.9	7.2	256	75	VBW: 5.6 kHz
Vert.	5460.000	PK	52.32	33.14	15.22	45.68	2.26	57.26	73.9	16.6	356	6	
Vert.	5460.000	AV	41.79	33.14	15.22	45.68	2.26	46.73	53.9	7.1	356	6	VBW: 5.6 kHz

Vert.	3400.000	AV	41.79	55.14	15.22	45.00	2.20	40.75	55.9	7.1	3
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 - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20\log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$

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

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

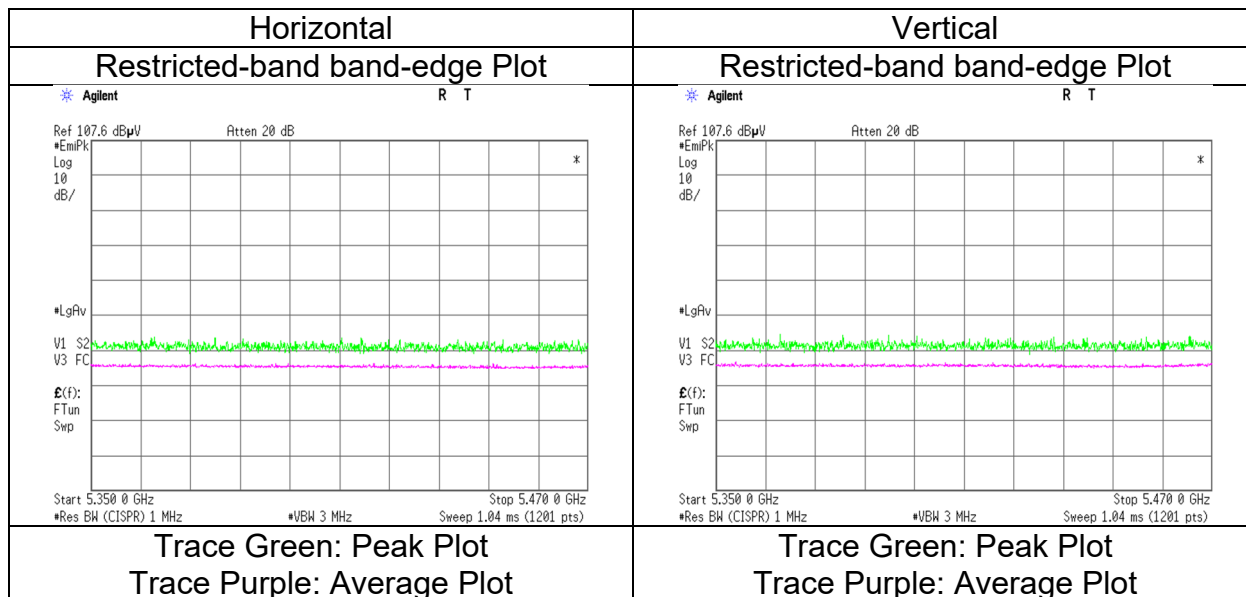
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remarks
Hori.	5470.000	PK	52.06	33.17	15.23	45.68	2.26	57.04	-38.18	-27.0	11.1	256	75	
Vert.	5470.000	PK	53.02	33.17	15.23	45.68	2.26	58.00	-37.22	-27.0	10.2	356	6	

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

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

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20\log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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.

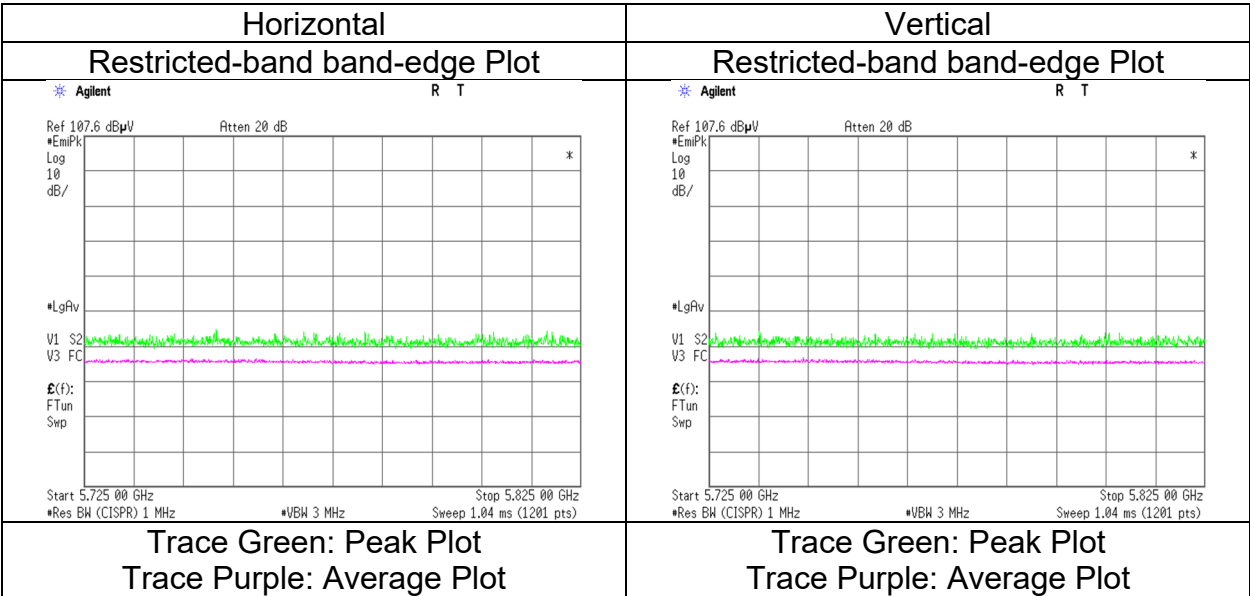
Radiated Spurious Emission

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 19, 2024
Temperature / Humidity 21 deg. C / 41 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11n-40 5670 MHz with BT LE 2M-PHY 2440 MHz

(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.	5725.000	PK	52.10	33.64	15.39	45.70	2.26	57.69	-37.53	-27.0	10.5	400	0	
Vert.	5725.000	PK	52.31	33.64	15.39	45.70	2.26	57.90	-37.32	-27.0	10.3	364	344	

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB
10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 19, 2024
Temperature / Humidity 21 deg. C / 41 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11n-40 5795 MHz with BT LE 2M-PHY 2440 MHz

(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	50.80	34.18	15.46	45.53	2.26	57.17	-38.05	27.0	65.0	220	82	
Hori.	5855.000	PK	50.42	34.22	15.46	45.52	2.26	56.84	-38.38	15.6	53.9	220	82	
Hori.	5875.000	PK	50.31	34.36	15.48	45.50	2.26	56.91	-38.31	10.0	48.3	220	82	
Hori.	5925.000	PK	51.66	34.65	15.51	45.46	2.26	58.62	-36.60	-27.0	9.6	220	82	
Vert.	5850.000	PK	50.84	34.18	15.46	45.53	2.26	57.21	-38.01	27.0	65.0	324	353	
Vert.	5855.000	PK	50.71	34.22	15.46	45.52	2.26	57.13	-38.09	15.6	53.6	324	353	
Vert.	5875.000	PK	51.08	34.36	15.48	45.50	2.26	57.68	-37.54	10.0	47.5	324	353	
Vert.	5925.000	PK	51.10	34.65	15.51	45.46	2.26	58.06	-37.16	-27.0	10.1	324	353	

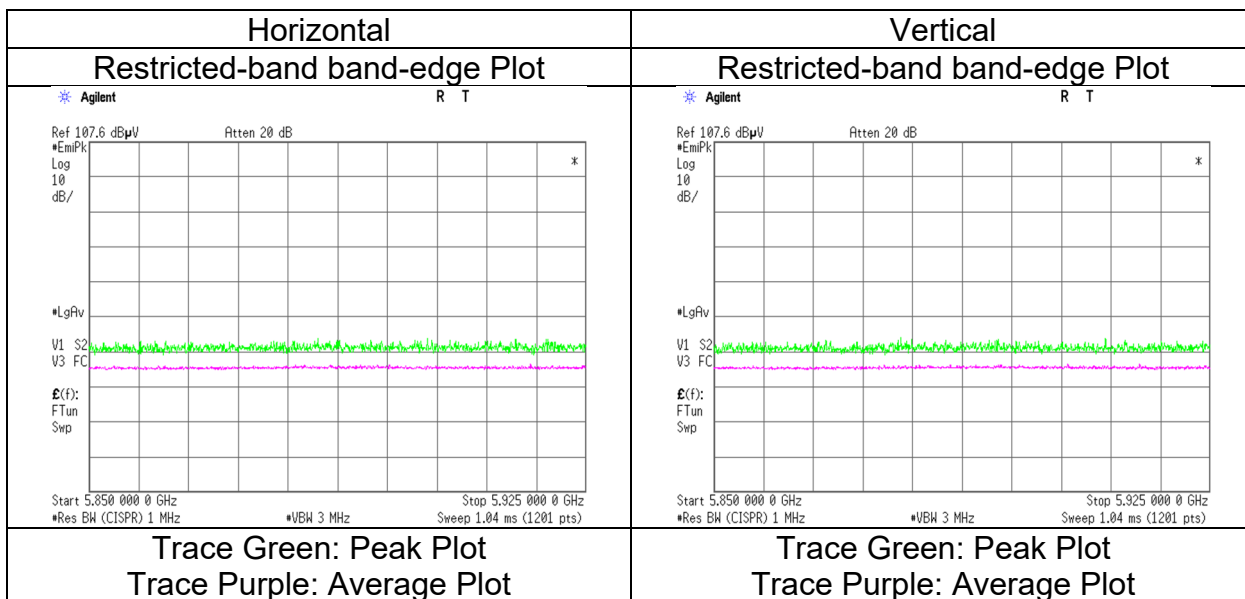
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 19, 2024
Temperature / Humidity	21 deg. C / 41 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-40 5190 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

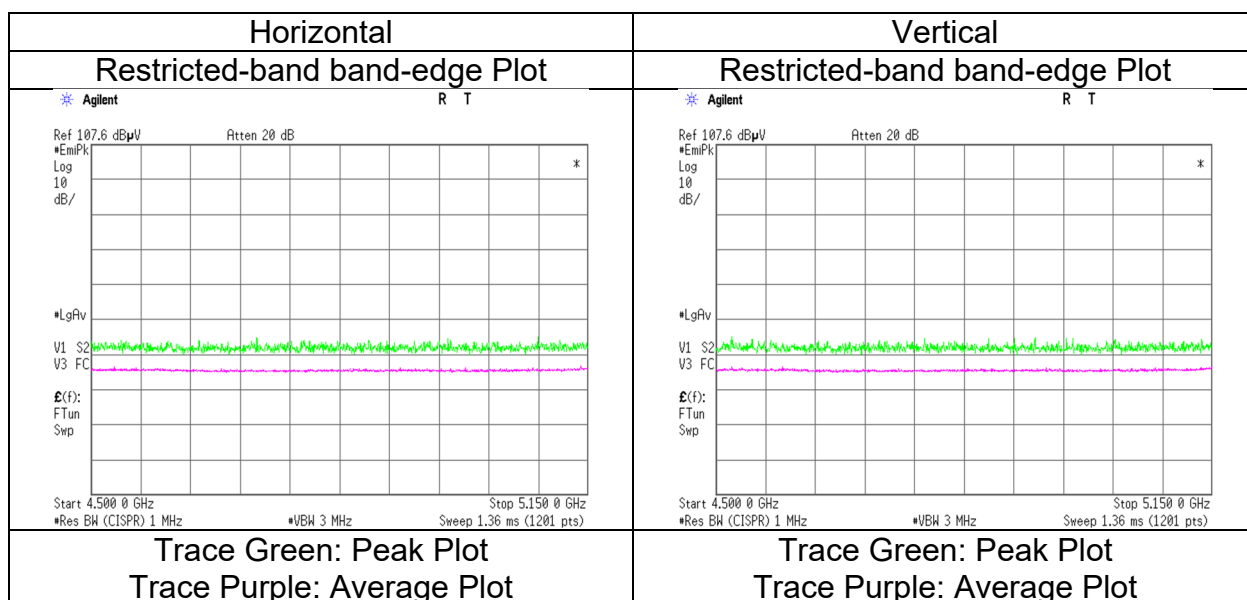
(* PK: Peak, AV: Average, QP: Quasi-Peak)

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	52.42	32.60	15.04	45.81	2.26	56.51	73.9	17.3	338	353	
Hori.	5150.000	AV	41.43	32.60	15.04	45.81	2.26	45.52	53.9	8.3	338	353	VBW: 4.3 kHz
Vert.	5150.000	PK	52.28	32.60	15.04	45.81	2.26	56.37	73.9	17.5	304	0	
Vert.	5150.000	AV	41.84	32.60	15.04	45.81	2.26	45.93	53.9	7.9	304	0	VBW: 4.3 kHz

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

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20 \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 19, 2024
Temperature / Humidity 21 deg. C / 41 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-40 5310 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

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

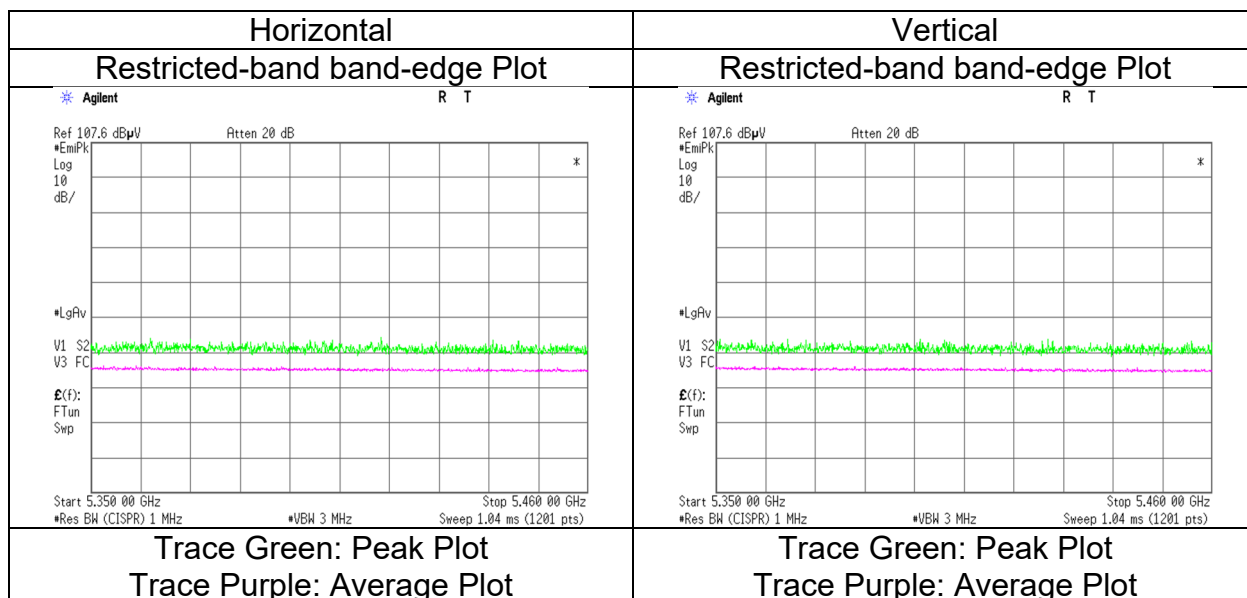
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	50.62	32.99	15.16	45.75	2.26	55.28	73.9	18.6	389	73	VBW: 4.3 kHz
Hori.	5350.000	AV	40.44	32.99	15.16	45.75	2.26	45.10	53.9	8.8	389	73	
Vert.	5350.000	PK	50.60	32.99	15.16	45.75	2.26	55.26	73.9	18.6	310	0	VBW: 4.3 kHz
Vert.	5350.000	AV	40.38	32.99	15.16	45.75	2.26	45.04	53.9	8.8	310	0	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

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



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

Radiated Spurious Emission

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 19, 2024
Temperature / Humidity	21 deg. C / 41 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-40 5510 MHz with BT LE 2M-PHY 2440 MHz

(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.	5460.000	PK	52.33	33.14	15.22	45.68	2.26	57.27	73.9	16.6	209	78	
Hori.	5460.000	AV	41.44	33.14	15.22	45.68	2.26	46.38	53.9	7.5	209	78	VBW: 4.3 kHz
Vert.	5460.000	PK	51.65	33.14	15.22	45.68	2.26	56.59	73.9	17.3	374	336	
Vert.	5460.000	AV	41.29	33.14	15.22	45.68	2.26	46.23	53.9	7.6	374	336	VBW: 4.3 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 - 10 GHz : $20\log(3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20 \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$

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

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

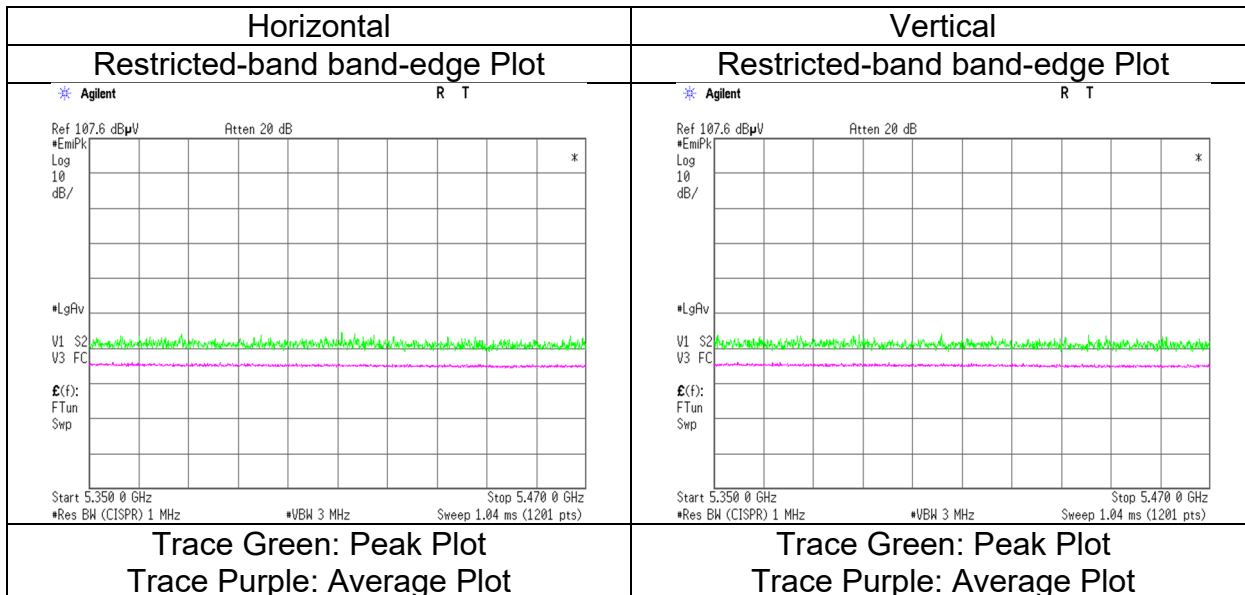
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dBm]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (ERP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remarks
Hori.	5470.000	PK	52.82	33.17	15.23	45.68	2.26	57.80	-37.42	-27.0	10.4	209	78	
Vert.	5470.000	PK	51.96	33.17	15.23	45.68	2.26	56.94	-38.28	-27.0	11.2	374	336	

$$\text{Result [dBuV/m]} = \text{Reading} + \text{Ant.Fac.} + \text{Loss (Cable+(Attenuator or Filter)(below 18 GHz))} - \text{Gain(Amplifier)} + \text{Distance factor}$$
$$\text{Result (EIRP [dBm])} = 10 * \text{LOG} \left(\left(10^{\left(\text{Electric Field Strength [dBuV/m]} / 20 \right)} * 10^{(-6)} * \text{Distance : 3 [m]} \right)^2 / 30 * 10^3 \right)$$

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 19, 2024
Temperature / Humidity	21 deg. C / 41 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-40 5670 MHz with BT LE 2M-PHY 2440 MHz

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

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

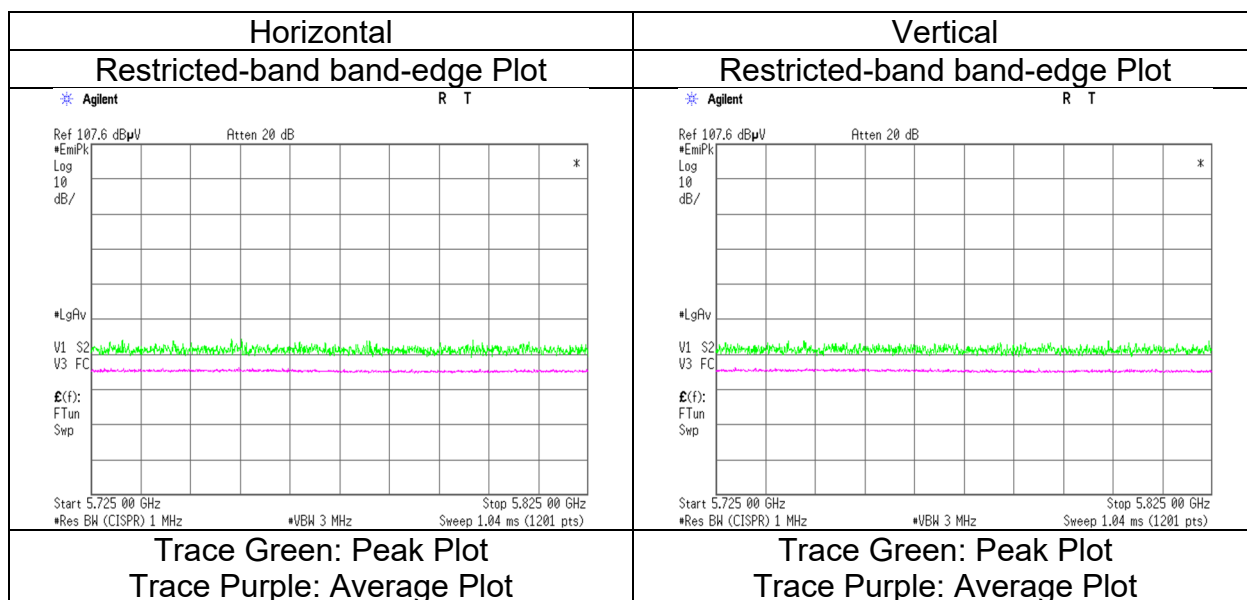
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remarks
Hori.	5725.000	PK	51.57	33.64	15.39	45.70	2.26	57.16	-38.06	-27.0	11.0	230	79	
Vert.	5725.000	PK	51.40	33.64	15.39	45.70	2.26	56.99	-38.23	-27.0	11.2	324	7	

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

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

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20\log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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.

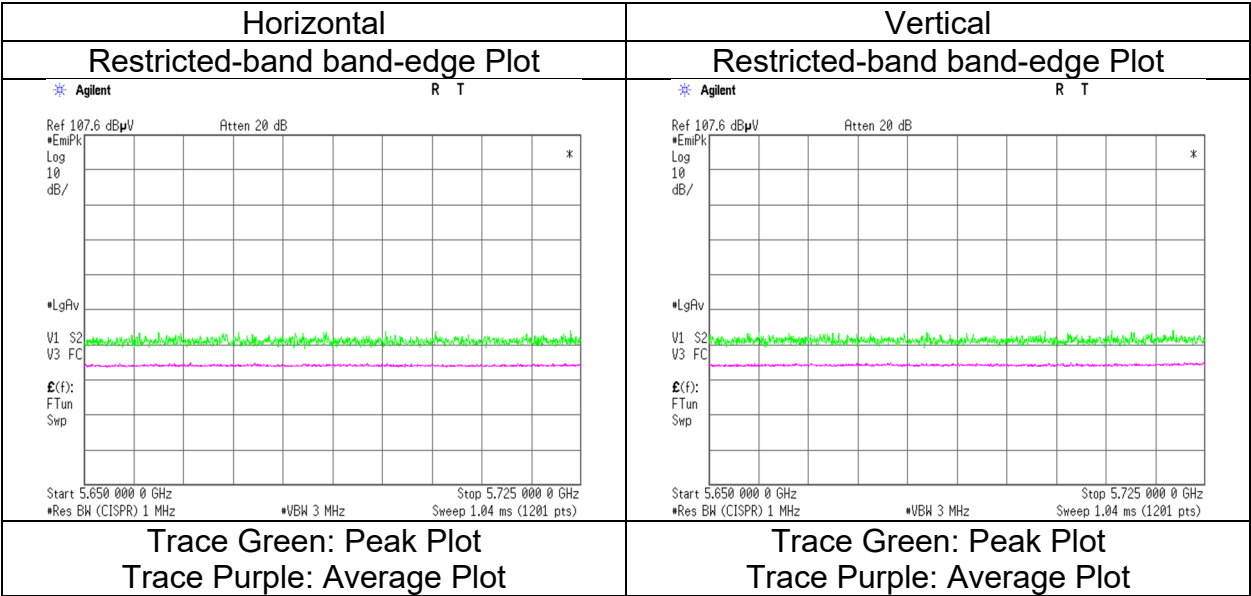
Radiated Spurious Emission

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 20, 2024
Temperature / Humidity 21 deg. C / 53 % RH
Engineer Hiromitsu Tanabe
 (1 GHz to 6.4 GHz)
Mode Tx 11ac-40 5755 MHz with BT LE 2M-PHY 2440 MHz

(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	51.79	33.39	15.34	45.73	2.26	57.05	-38.17	-27.0	11.1	231	83	
Hori.	5700.000	PK	51.87	33.53	15.37	45.72	2.26	57.31	-37.91	10.0	47.9	231	83	
Hori.	5720.000	PK	51.62	33.61	15.38	45.70	2.26	57.17	-38.05	15.6	53.6	231	83	
Hori.	5725.000	PK	52.18	33.64	15.39	45.70	2.26	57.77	-37.45	27.0	64.4	231	83	
Vert.	5650.000	PK	51.63	33.39	15.34	45.73	2.26	56.89	-38.33	-27.0	11.3	368	352	
Vert.	5700.000	PK	51.82	33.53	15.37	45.72	2.26	57.26	-37.96	10.0	47.9	368	352	
Vert.	5720.000	PK	52.33	33.61	15.38	45.70	2.26	57.88	-37.34	15.6	52.9	368	352	
Vert.	5725.000	PK	52.79	33.64	15.39	45.70	2.26	58.38	-36.84	27.0	63.8	368	352	

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB
10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 20, 2024
Temperature / Humidity	21 deg. C / 53 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-40 5795 MHz with BT LE 2M-PHY 2440 MHz

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

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

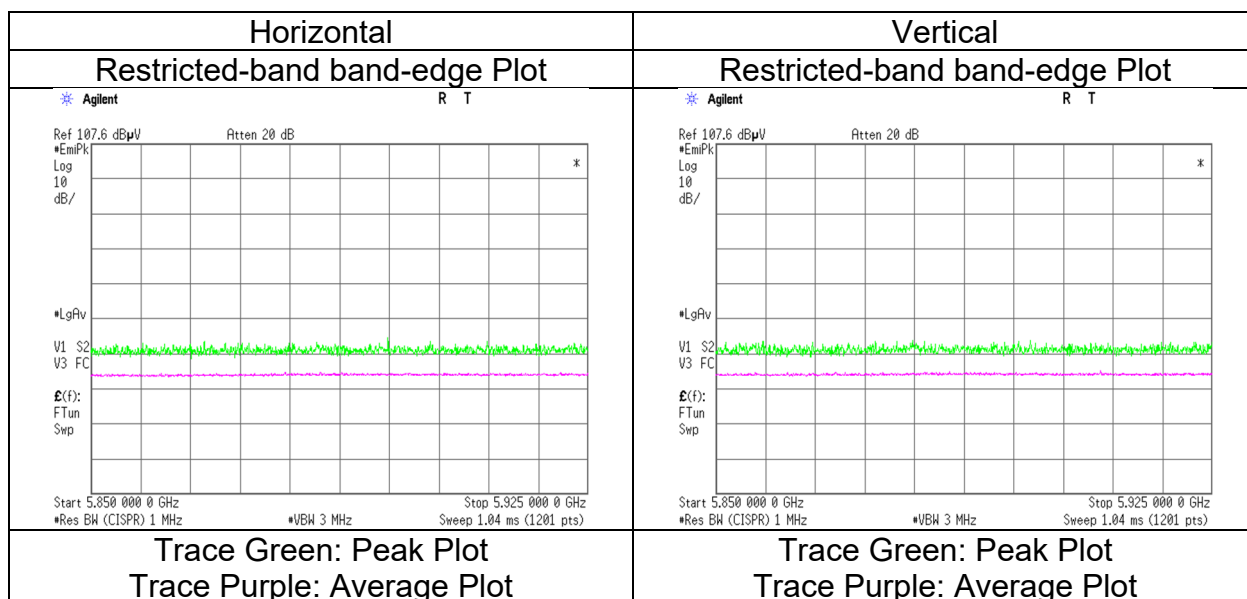
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remarks
Hori.	5850.000	PK	49.92	34.18	15.46	45.53	2.26	56.29	-38.93	27.0	65.9	229	83	
Hori.	5855.000	PK	49.47	34.22	15.46	45.52	2.26	55.89	-39.33	15.6	54.9	229	83	
Hori.	5875.000	PK	49.65	34.36	15.48	45.50	2.26	56.25	-38.97	10.0	48.9	229	83	
Hori.	5925.000	PK	50.86	34.65	15.51	45.46	2.26	57.82	-37.40	-27.0	10.4	229	83	
Vert.	5850.000	PK	49.96	34.18	15.46	45.53	2.26	56.33	-38.89	27.0	65.8	339	359	
Vert.	5855.000	PK	49.71	34.22	15.46	45.52	2.26	56.13	-39.09	15.6	54.6	339	359	
Vert.	5875.000	PK	49.73	34.36	15.48	45.50	2.26	56.33	-38.89	10.0	48.8	339	359	
Vert.	5925.000	PK	51.02	34.65	15.51	45.46	2.26	57.98	-37.24	-27.0	10.2	339	359	

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

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

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

$$10 \text{ GHz} - 40 \text{ GHz} : 20\log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$$


* 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 20, 2024
Temperature / Humidity 21 deg. C / 53 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5210 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

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

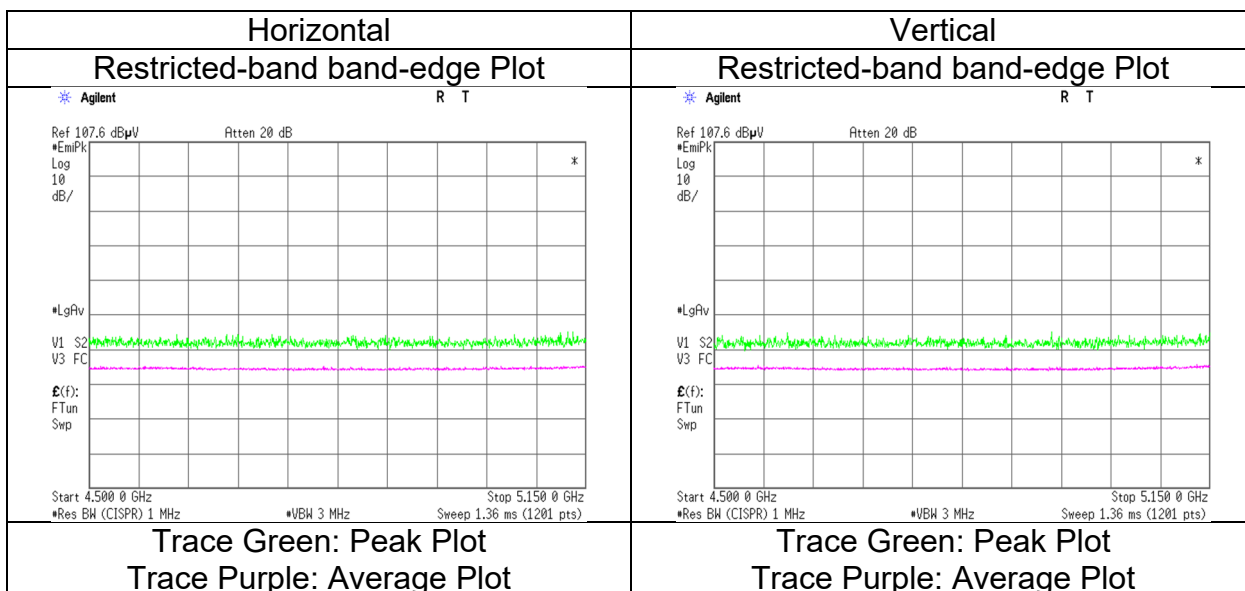
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	51.61	32.60	15.04	45.81	2.26	55.70	73.9	18.2	236	351	VBW: 4.3 kHz
Hori.	5150.000	AV	41.52	32.60	15.04	45.81	2.26	45.61	53.9	8.2	236	351	
Vert.	5150.000	PK	52.21	32.60	15.04	45.81	2.26	56.30	73.9	17.6	205	4	VBW: 4.3 kHz
Vert.	5150.000	AV	41.70	32.60	15.04	45.81	2.26	45.79	53.9	8.1	205	4	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 20, 2024
Temperature / Humidity 21 deg. C / 53 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5290 MHz with BT LE 2M-PHY 2440 MHz

(above 1 GHz Inside of the restricted band)

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

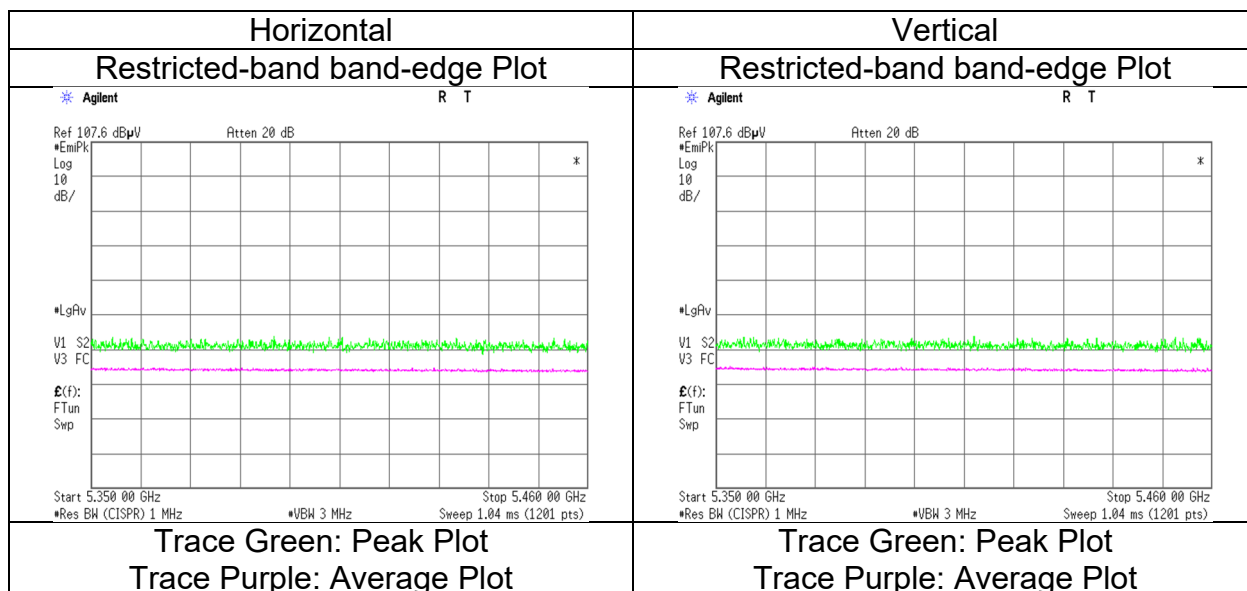
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	50.41	32.99	15.16	45.75	2.26	55.07	73.9	18.8	316	350	VBW: 4.3 kHz
Hori.	5350.000	AV	40.32	32.99	15.16	45.75	2.26	44.98	53.9	8.9	316	350	
Vert.	5350.000	PK	50.96	32.99	15.16	45.75	2.26	55.62	73.9	18.2	279	5	VBW: 4.3 kHz
Vert.	5350.000	AV	40.43	32.99	15.16	45.75	2.26	45.09	53.9	8.8	279	5	

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 - 10 GHz : $20\log(3.89\text{ m} / 3.0\text{ m}) = 2.26\text{ dB}$

10 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

Test place	Kashima EMC Lab.
Semi Anechoic Chamber	No.11
Date	February 20, 2024
Temperature / Humidity	21 deg. C / 53 % RH
Engineer	Hiromitsu Tanabe (1 GHz to 6.4 GHz)
Mode	Tx 11ac-80 5530 MHz with BT LE 2M-PHY 2440 MHz

(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.	5460.000	PK	52.53	33.14	15.22	45.68	2.26	57.47	73.9	16.4	250	332	
Hori.	5460.000	AV	41.50	33.14	15.22	45.68	2.26	46.44	53.9	7.4	250	332	VBW: 4.3 kHz
Vert.	5460.000	PK	51.75	33.14	15.22	45.68	2.26	56.69	73.9	17.2	356	340	
Vert.	5460.000	AV	41.73	33.14	15.22	45.68	2.26	46.67	53.9	7.2	356	340	VBW: 4.3 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 - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

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

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

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

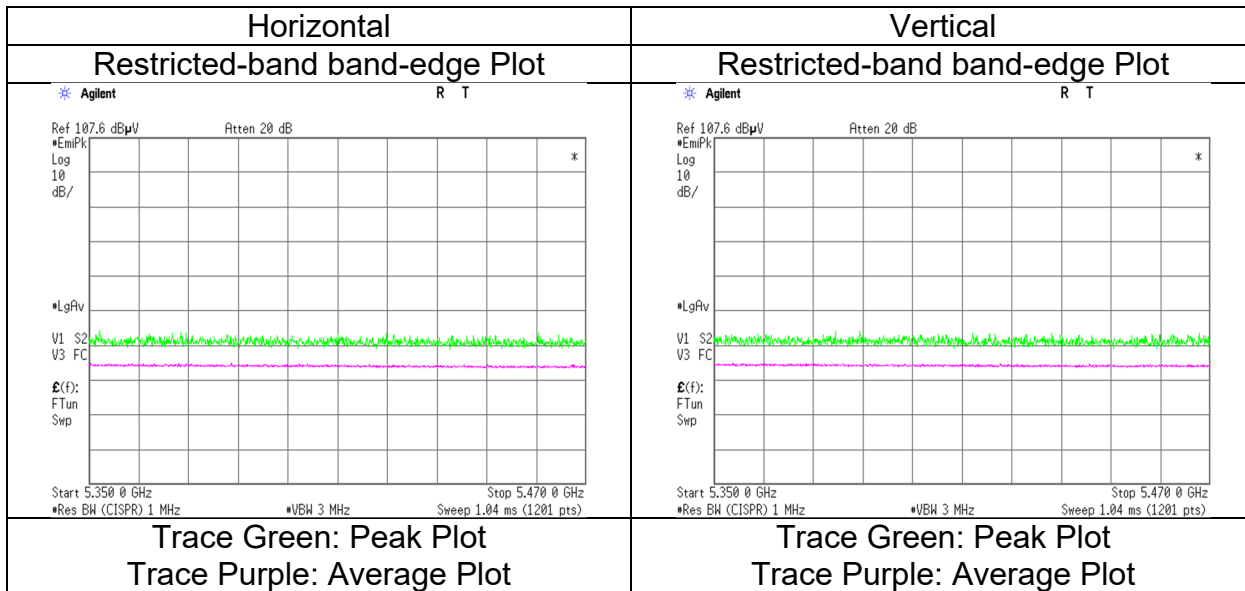
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dBm]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (ERP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	52.47	33.17	15.23	45.68	2.26	57.45	-37.77	-27.0	10.7	250	332	
Vert.	5470.000	PK	52.19	33.17	15.23	45.68	2.26	57.17	-38.05	-27.0	11.0	356	340	

$$\text{Result [dBuV/m]} = \text{Reading} + \text{Ant.Fac.} + \text{Loss (Cable+(Attenuator or Filter)(below 18 GHz))} - \text{Gain(Amplifier)} + \text{Distance factor}$$
$$\text{Result (EIRP [dBm])} = 10 * \text{LOG} \left(\left(10^{\left(\text{Electric Field Strength [dBuV/m]} / 20 \right)} * 10^{(-6)} * \text{Distance : 3 [m]} \right)^2 / 30 * 10^3 \right)$$

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

Distance factor : 1 GHz - 10 GHz : $20\log (3.89 \text{ m} / 3.0 \text{ m}) = 2.26 \text{ dB}$

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 20, 2024
Temperature / Humidity 21 deg. C / 53 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5610 MHz with BT LE 2M-PHY 2440 MHz

(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.	5725.000	PK	51.53	33.64	15.39	45.70	2.26	57.12	-38.10	-27.0	11.1	227	334	
Vert.	5725.000	PK	51.91	33.64	15.39	45.70	2.26	57.50	-37.72	-27.0	10.7	389	11	

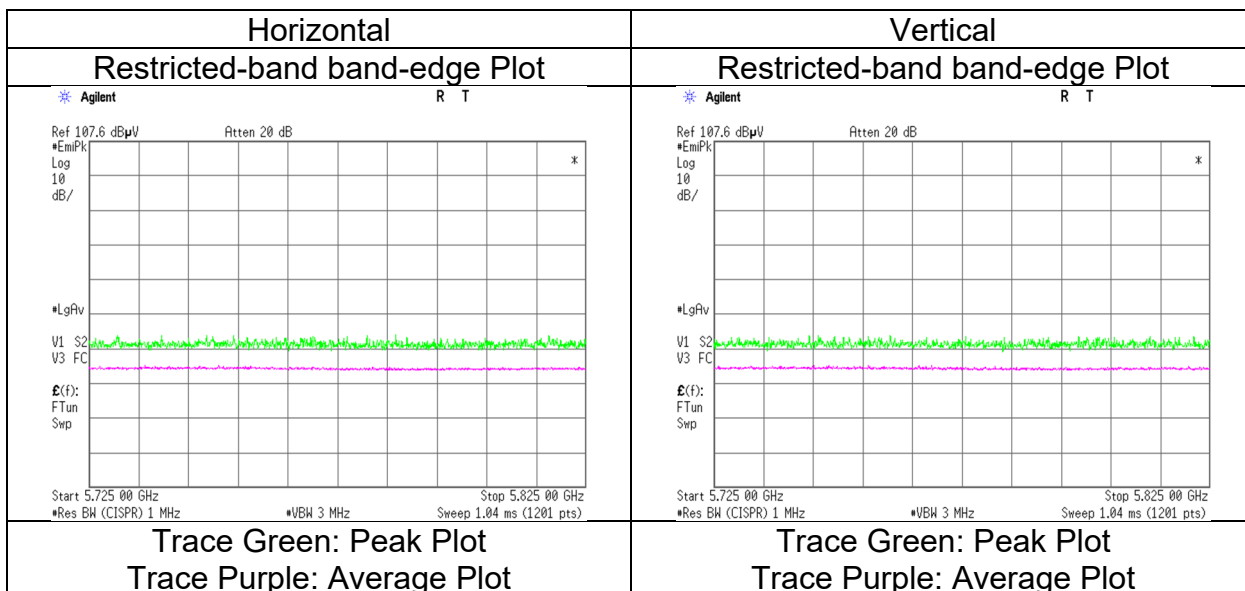
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

10 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

Test place Kashima EMC Lab.
Semi Anechoic Chamber No.11
Date February 20, 2024
Temperature / Humidity 21 deg. C / 53 % RH
Engineer Hiromitsu Tanabe
(1 GHz to 6.4 GHz)
Mode Tx 11ac-80 5775 MHz with BT LE 2M-PHY 2440 MHz

(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	51.65	33.39	15.34	45.73	2.26	56.91	-38.31	-27.0	11.3	237	79	
Hori.	5700.000	PK	51.92	33.53	15.37	45.72	2.26	57.36	-37.86	10.0	47.8	237	79	
Hori.	5720.000	PK	51.71	33.61	15.38	45.70	2.26	57.26	-37.96	15.6	53.5	237	79	
Hori.	5725.000	PK	54.12	33.64	15.39	45.70	2.26	59.71	-35.51	27.0	62.5	237	79	
Hori.	5850.000	PK	50.58	34.18	15.46	45.53	2.26	56.95	-38.27	27.0	65.2	237	79	
Hori.	5855.000	PK	50.07	34.22	15.46	45.52	2.26	56.49	-38.73	15.6	54.3	237	79	
Hori.	5875.000	PK	50.63	34.36	15.48	45.50	2.26	57.23	-37.99	10.0	47.9	237	79	
Hori.	5925.000	PK	51.11	34.65	15.51	45.46	2.26	58.07	-37.15	-27.0	10.1	237	79	
Vert.	5650.000	PK	52.09	33.39	15.34	45.73	2.26	57.35	-37.87	-27.0	10.8	330	352	
Vert.	5700.000	PK	52.13	33.53	15.37	45.72	2.26	57.57	-37.65	10.0	47.6	330	352	
Vert.	5720.000	PK	52.82	33.61	15.38	45.70	2.26	58.37	-36.85	15.6	52.4	330	352	
Vert.	5725.000	PK	56.52	33.64	15.39	45.70	2.26	62.11	-33.11	27.0	60.1	330	352	
Vert.	5850.000	PK	50.51	34.18	15.46	45.53	2.26	56.88	-38.34	27.0	65.3	330	352	
Vert.	5855.000	PK	50.07	34.22	15.46	45.52	2.26	56.49	-38.73	15.6	54.3	330	352	
Vert.	5875.000	PK	50.52	34.36	15.48	45.50	2.26	57.12	-38.10	10.0	48.1	330	352	
Vert.	5925.000	PK	52.20	34.65	15.51	45.46	2.26	59.16	-36.06	-27.0	9.0	330	352	

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 - 10 GHz : 20log (3.89 m / 3.0 m) = 2.26 dB

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