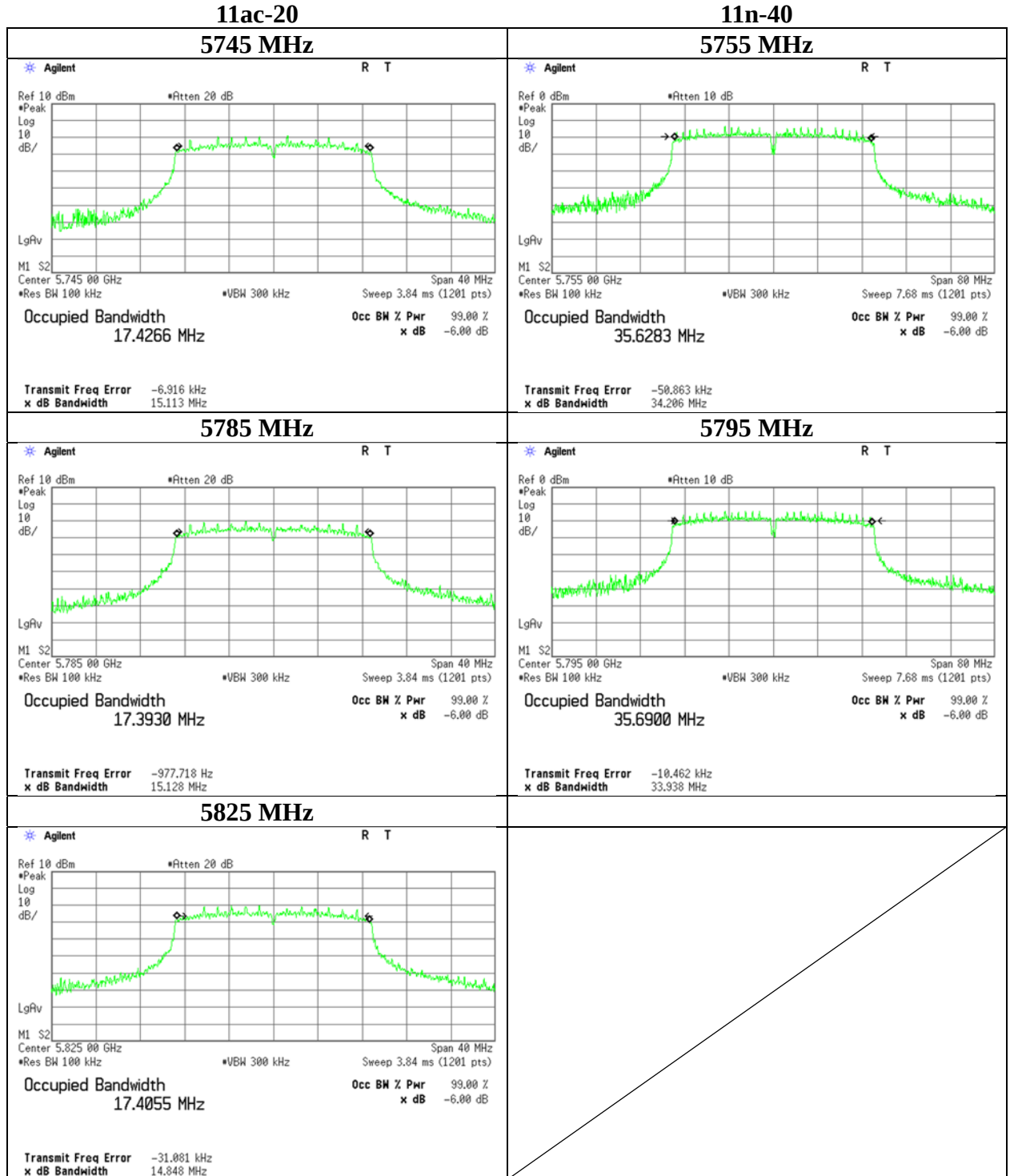
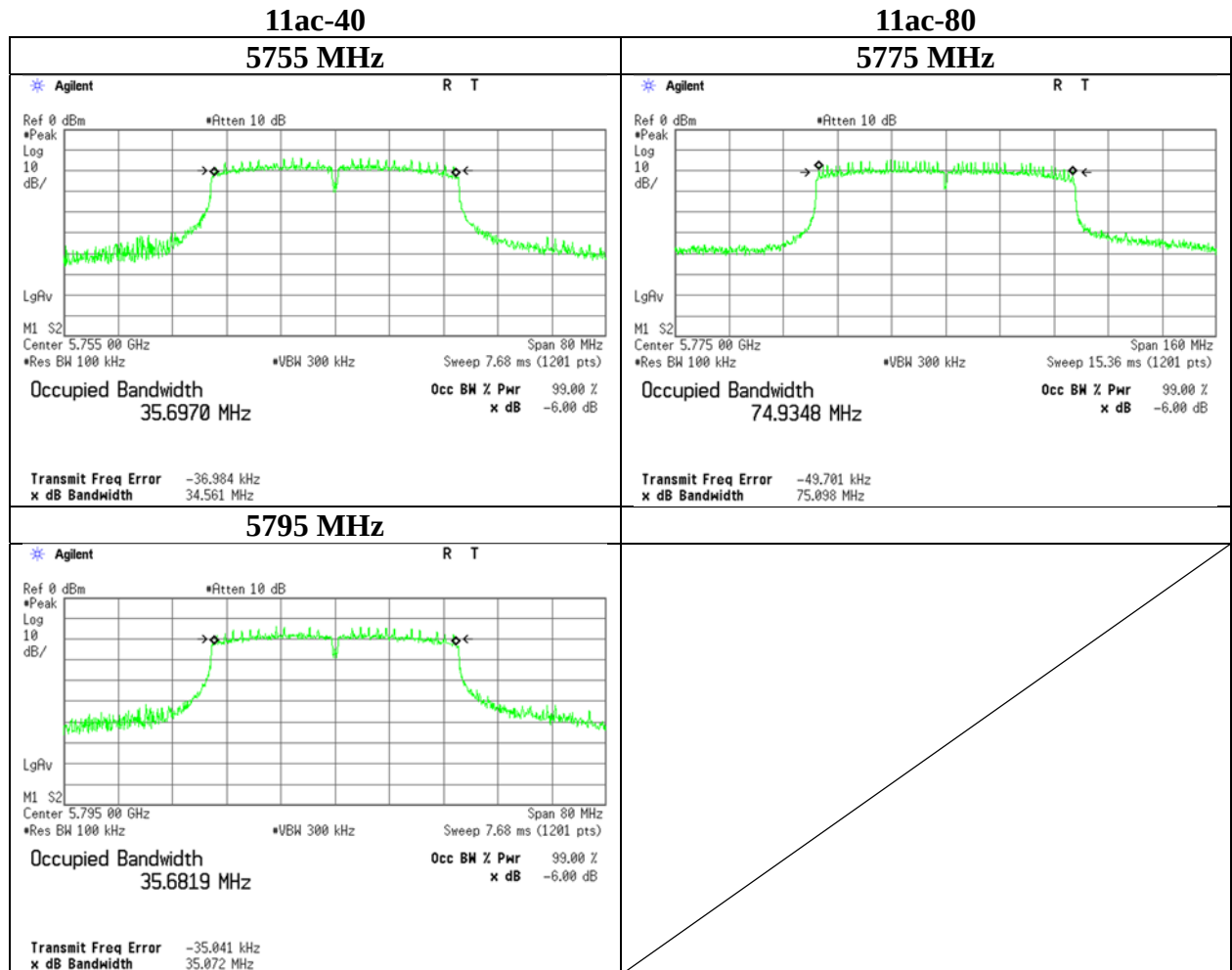


6 dB Bandwidth



6 dB Bandwidth



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Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11a

11a

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.08	1.50	10.16	0.65	3.0	-	16.402	11.23	13.27	23.97	12.74	14.23	26.49	29.97	15.74
5200	-0.02	1.50	10.16	0.65	3.0	-	16.410	12.29	16.94	23.97	11.68	15.29	33.81	29.97	14.68
5240	-0.30	1.50	10.16	0.65	3.0	-	16.410	12.01	15.89	23.97	11.96	15.01	31.70	29.97	14.96
5260	-0.41	1.50	10.16	0.65	3.0	18.498	16.419	11.90	15.49	23.67	11.77	14.90	30.90	29.97	15.07
5300	0.21	1.50	10.17	0.65	3.0	18.987	16.432	12.53	17.91	23.78	11.25	15.53	35.73	29.97	14.44
5320	-1.35	1.50	10.17	0.65	3.0	18.594	16.420	10.97	12.50	23.69	12.72	13.97	24.95	29.97	16.00
5500	-1.65	1.50	10.19	0.65	3.0	18.309	16.411	10.69	11.72	23.62	12.93	13.69	23.39	29.97	16.28
5580	-1.44	1.50	10.18	0.65	3.0	18.491	16.459	10.89	12.27	23.66	12.77	13.89	24.49	29.97	16.08
5680	-1.42	1.50	10.17	0.65	3.0	18.987	16.409	10.90	12.30	23.78	12.88	13.90	24.55	29.97	16.07
5700	-1.34	1.50	10.17	0.65	3.0	18.560	16.459	10.98	12.53	23.68	12.70	13.98	25.00	29.97	15.99
5720	-1.56	1.50	10.17	0.65	3.0	18.385	16.408	10.76	11.91	23.64	12.88	13.76	23.77	29.97	16.21
5745	-0.52	1.50	10.16	0.65	3.0	-	16.392	11.79	15.10	30.00	18.21	14.79	30.13	36.00	21.21
5785	-0.91	1.50	10.16	0.65	3.0	-	16.377	11.40	13.80	30.00	18.60	14.40	27.54	36.00	21.60
5825	-0.82	1.50	10.16	0.65	3.0	-	16.392	11.49	14.09	30.00	18.51	14.49	28.12	36.00	21.51

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11n-20

11n-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted Power				e.i.r.p.			
								Result	Limit	Margin		Result	Limit	Margin	
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.02	1.50	10.16	0.98	3.0	-	17.478	11.62	14.52	23.97	12.35	14.62	28.97	29.97	15.35
5200	0.91	1.50	10.16	0.98	3.0	-	17.514	13.55	22.65	23.97	10.42	16.55	45.19	29.97	13.42
5240	0.65	1.50	10.16	0.98	3.0	-	17.508	13.29	21.33	23.97	10.68	16.29	42.56	29.97	13.68
5260	0.62	1.50	10.16	0.98	3.0	19.406	17.489	13.26	21.18	23.87	10.61	16.26	42.27	29.97	13.71
5300	1.20	1.50	10.17	0.98	3.0	19.619	17.487	13.85	24.27	23.92	10.07	16.85	48.42	29.97	13.12
5320	-1.39	1.50	10.17	0.98	3.0	19.225	17.521	11.26	13.37	23.83	12.57	14.26	26.67	29.97	15.71
5500	-1.86	1.50	10.19	0.98	3.0	19.448	17.448	10.81	12.05	23.88	13.07	13.81	24.04	29.97	16.16
5580	-1.49	1.50	10.18	0.98	3.0	19.117	17.435	11.17	13.09	23.81	12.64	14.17	26.12	29.97	15.80
5680	-1.43	1.50	10.17	0.98	3.0	19.102	17.447	11.22	13.24	23.81	12.59	14.22	26.42	29.97	15.75
5700	-1.27	1.50	10.17	0.98	3.0	19.788	17.521	11.38	13.74	23.96	12.58	14.38	27.42	29.97	15.59
5720	-1.47	1.50	10.17	0.98	3.0	19.269	17.520	11.18	13.12	23.84	12.66	14.18	26.18	29.97	15.79
5745	-0.53	1.50	10.16	0.98	3.0	-	17.482	12.11	16.26	30.00	17.89	15.11	32.43	36.00	20.89
5785	-0.76	1.50	10.16	0.98	3.0	-	17.492	11.88	15.42	30.00	18.12	14.88	30.76	36.00	21.12
5825	-0.82	1.50	10.16	0.98	3.0	-	17.480	11.82	15.21	30.00	18.18	14.82	30.34	36.00	21.18

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11ac-20

11ac-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-0.92	1.50	10.16	1.03	3.0	-	17.475	11.77	15.03	23.97	12.20	14.77	29.99	29.97	15.20
5200	0.97	1.50	10.16	1.03	3.0	-	17.568	13.66	23.23	23.97	10.31	16.66	46.34	29.97	13.31
5240	0.79	1.50	10.16	1.03	3.0	-	17.515	13.48	22.28	23.97	10.49	16.48	44.46	29.97	13.49
5260	0.72	1.50	10.16	1.03	3.0	19.289	17.485	13.41	21.93	23.85	10.44	16.41	43.75	29.97	13.56
5300	1.35	1.50	10.17	1.03	3.0	19.255	17.530	14.05	25.41	23.84	9.79	17.05	50.70	29.97	12.92
5320	-1.23	1.50	10.17	1.03	3.0	19.420	17.450	11.47	14.03	23.88	12.41	14.47	27.99	29.97	15.50
5500	-1.75	1.50	10.19	1.03	3.0	20.164	17.474	10.97	12.50	23.97	13.00	13.97	24.95	29.97	16.00
5580	-1.31	1.50	10.18	1.03	3.0	19.250	17.470	11.40	13.80	23.84	12.44	14.40	27.54	29.97	15.57
5680	-1.36	1.50	10.17	1.03	3.0	19.206	17.477	11.34	13.61	23.83	12.49	14.34	27.16	29.97	15.63
5700	-1.19	1.50	10.17	1.03	3.0	19.066	17.481	11.51	14.16	23.80	12.29	14.51	28.25	29.97	15.46
5720	-1.42	1.50	10.17	1.03	3.0	19.266	17.493	11.28	13.43	23.84	12.56	14.28	26.79	29.97	15.69
5745	-0.44	1.50	10.16	1.03	3.0	-	17.479	12.25	16.79	30.00	17.75	15.25	33.50	36.00	20.75
5785	-0.67	1.50	10.16	1.03	3.0	-	17.507	12.02	15.92	30.00	17.98	15.02	31.77	36.00	20.98
5825	-0.74	1.50	10.16	1.03	3.0	-	17.487	11.95	15.67	30.00	18.05	14.95	31.26	36.00	21.05

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

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Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 61 % RH 25 deg. C / 39 % RH
Engineer Akihiko Maeda Takafumi Noguchi
Mode Tx 11n-40

11n-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5190	-3.09	1.50	10.16	1.67	3.0	-	35.851	10.24	10.57	23.97	13.73	13.24	21.09	29.97	16.73
5230	-0.89	1.50	10.16	1.67	3.0	-	35.913	12.44	17.54	23.97	11.53	15.44	34.99	29.97	14.53
5270	-0.74	1.50	10.16	1.67	3.0	39.750	35.911	12.59	18.16	23.97	11.38	15.59	36.22	29.97	14.38
5310	-1.70	1.50	10.17	1.67	3.0	39.206	35.860	11.64	14.59	23.97	12.33	14.64	29.11	29.97	15.33
5510	-4.77	1.50	9.90	1.67	3.0	39.691	35.904	8.30	6.76	23.97	15.67	11.30	13.49	29.97	18.67
5550	-1.68	1.50	10.18	1.67	3.0	40.498	35.854	11.67	14.69	23.97	12.30	14.67	29.31	29.97	15.30
5670	-1.77	1.50	10.17	1.67	3.0	40.241	35.880	11.57	14.35	23.97	12.40	14.57	28.64	29.97	15.40
5710	-2.04	1.50	10.17	1.67	3.0	41.804	35.836	11.30	13.49	23.97	12.67	14.30	26.92	29.97	15.67
5755	-2.29	1.50	10.16	1.67	3.0	-	35.866	11.04	12.71	30.00	18.96	14.04	25.35	36.00	21.96
5795	-2.19	1.50	10.16	1.67	3.0	-	35.827	11.14	13.00	30.00	18.86	14.14	25.94	36.00	21.86

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 61 % RH 25 deg. C / 39 % RH
Engineer Akihiko Maeda Takafumi Noguchi
Mode Tx 11ac-40

11ac-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5190	-3.08	1.50	10.16	1.72	3.0	-	35.811	10.30	10.72	23.97	13.67	13.30	21.38	29.97	16.67
5230	-0.86	1.50	10.16	1.72	3.0	-	35.908	12.52	17.86	23.97	11.45	15.52	35.65	29.97	14.45
5270	-0.72	1.50	10.16	1.72	3.0	39.515	35.881	12.66	18.45	23.97	11.31	15.66	36.81	29.97	14.31
5310	-1.66	1.50	10.17	1.72	3.0	41.272	35.885	11.73	14.89	23.97	12.24	14.73	29.72	29.97	15.24
5510	-4.72	1.50	9.90	1.72	3.0	40.037	35.884	8.40	6.92	23.97	15.57	11.40	13.80	29.97	18.57
5550	-1.67	1.50	10.18	1.72	3.0	39.44	35.948	11.73	14.89	23.97	12.24	14.73	29.72	29.97	15.24
5670	-1.74	1.50	10.17	1.72	3.0	39.073	35.901	11.65	14.62	23.97	12.32	14.65	29.17	29.97	15.32
5710	-2.00	1.50	10.17	1.72	3.0	39.872	35.829	11.39	13.77	23.97	12.58	14.39	27.48	29.97	15.58
5755	-2.27	1.50	10.16	1.72	3.0	-	35.863	11.11	12.91	30.00	18.89	14.11	25.76	36.00	21.89
5795	-2.15	1.50	10.16	1.72	3.0	-	35.845	11.23	13.27	30.00	18.77	14.23	26.49	36.00	21.77

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

Conducted Power Limit (5725 MHz-5850 MHz) = 1W

Maximum Conducted Output Power

Report No.	13521383H		
Test place	Ise EMC Lab. No.6 Measurement Room		
Date	October 20, 2020	October 30, 2020	December 16, 2020
Temperature / Humidity	19 deg. C / 61 % RH	25 deg. C / 39 % RH	19 deg. C / 34 % RH
Engineer	Akihiko Maeda	Takafumi Noguchi	Akihiko Maeda
Mode	Tx 11ac-80		

11ac-80

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted Power				e.i.r.p.			
								Result	Limit	Margin		Result	Limit	Margin	
								[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5210	-3.20	1.50	9.88	3.28	3.0	-	74.794	11.46	14.00	23.97	12.51	14.46	27.93	29.97	15.51
5290	-2.84	1.50	9.89	3.28	3.0	82.684	74.861	11.83	15.24	23.97	12.14	14.83	30.41	29.97	15.14
5530	-2.00	1.50	9.90	3.28	3.0	79.273	74.964	12.68	18.54	23.97	11.29	15.68	36.98	29.97	14.29
5610	-1.64	1.50	10.18	3.28	3.0	83.085	74.953	13.32	21.48	23.97	10.65	16.32	42.85	29.97	13.65
5690	-1.56	1.50	10.17	3.28	3.0	80.955	74.993	13.39	21.83	23.97	10.58	16.39	43.55	29.97	13.58
5775	-1.48	1.50	10.16	3.28	3.0	-	74.901	13.46	22.18	30.00	16.54	16.46	44.26	36.00	19.54

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

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Maximum Conducted Output Power

Report No. 13521383H
Test place Ise EMC Lab. No.6 Shielded Room
Date October 15, 2020
Temperature / Humidity 24 deg. C / 49 % RH
Engineer Tomohisa Nakagawa
Mode Tx

5180 MHz for 20 MHz BW

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11a	Mbps		
	6	0.83	
	9	0.88	
	12	0.92	0.83
	18	0.88	
	24	0.61	
	36	-0.30	
	48	-0.73	
	54	-1.61	

5190 MHz for 40 MHz BW

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11n-40	MCS		
	0	-1.10	
	1	-1.05	
	2	-0.90	-0.94
	3	-1.22	
	4	-1.05	
	5	-1.58	
	6	-2.01	
	7	-2.33	

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11n-20	MCS		
	0	0.64	
	1	0.70	
	2	0.78	0.71
	3	0.54	
	4	0.60	
	5	-1.32	
	6	-1.63	
	7	-1.68	

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11ac-40	MCS		
	0	-1.13	
	1	-0.99	
	2	-0.97	-0.99
	3	-1.16	
	4	-1.18	
	5	-1.51	
	6	-2.55	
	7	-2.36	
	8	-3.71	
	9	-6.24	

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11ac-20	MCS		
	0	0.62	
	1	0.63	
	2	0.67	0.66
	3	0.52	
	4	0.59	
	5	-1.19	
	6	-1.78	
	7	-1.78	
	8	-3.39	

5210 MHz for 80 MHz BW

Mode	Rate	Reading (Burst power) LGI [dBm]	Reading (Burst power) SGI [dBm]
11ac-80	MCS		
	0	-0.66	
	1	-0.54	
	2	-0.52	-0.53
	3	-0.78	
	4	-0.76	
	5	-0.71	
	6	-1.06	
	7	-1.55	
	8	-3.12	
	9	-4.12	

All comparisons were carried out on same frequency and measurement factors.
Power value(burst power) is used the gating functionality of the power meter.
Italic is worst rate.

UL Japan, Inc.

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Average Output Power **(Reference data for RF Exposure)**

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11a

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5180	-0.83	1.50	10.16	10.83	12.11	0.34	11.17	13.09
5200	0.16	1.50	10.16	11.82	15.21	0.34	12.16	16.44
5240	-0.11	1.50	10.16	11.55	14.29	0.34	11.89	15.45
5260	-0.15	1.50	10.16	11.51	14.16	0.34	11.85	15.31
5300	0.38	1.50	10.17	12.05	16.03	0.34	12.39	17.34
5320	-1.21	1.50	10.17	10.46	11.12	0.34	10.80	12.02
5500	-1.58	1.50	10.19	10.11	10.26	0.34	10.45	11.09
5580	-1.21	1.50	10.18	10.47	11.14	0.34	10.81	12.05
5680	-1.34	1.50	10.17	10.33	10.79	0.34	10.67	11.67
5700	-1.23	1.50	10.17	10.44	11.07	0.34	10.78	11.97
5720	-1.42	1.50	10.17	10.25	10.59	0.34	10.59	11.46
5745	-0.45	1.50	10.16	11.21	13.21	0.34	11.55	14.29
5785	-0.74	1.50	10.16	10.92	12.36	0.34	11.26	13.37
5825	-0.66	1.50	10.16	11.00	12.59	0.34	11.34	13.61

Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

The average output power was measured with the lowest order modulation and lowest data rate configuration in each IEEE 802.11 mode based on KDB 248227 D01.

Average Output Power
(Reference data for RF Exposure)

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11n-20

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5180	-0.65	1.50	10.16	11.01	12.62	0.36	11.37	13.71
5200	1.32	1.50	10.16	12.98	19.86	0.36	13.34	21.58
5240	1.09	1.50	10.16	12.75	18.84	0.36	13.11	20.46
5260	0.90	1.50	10.16	12.56	18.03	0.36	12.92	19.59
5300	1.35	1.50	10.17	13.02	20.04	0.36	13.38	21.78
5320	-0.97	1.50	10.17	10.70	11.75	0.36	11.06	12.76
5500	-1.47	1.50	10.19	10.22	10.52	0.36	10.58	11.43
5580	-1.25	1.50	10.18	10.43	11.04	0.36	10.79	11.99
5680	-1.34	1.50	10.17	10.33	10.79	0.36	10.69	11.72
5700	-0.97	1.50	10.17	10.70	11.75	0.36	11.06	12.76
5720	-1.13	1.50	10.17	10.54	11.32	0.36	10.90	12.30
5745	-0.24	1.50	10.16	11.42	13.87	0.36	11.78	15.07
5785	-0.36	1.50	10.16	11.30	13.49	0.36	11.66	14.66
5825	-0.33	1.50	10.16	11.33	13.58	0.36	11.69	14.76

Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020
Temperature / Humidity 19 deg. C / 61 % RH
Engineer Akihiko Maeda
Mode Tx 11ac-20

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5180	-0.54	1.50	10.16	11.12	12.94	0.38	11.50	14.13
5200	1.32	1.50	10.16	12.98	19.86	0.38	13.36	21.68
5240	1.12	1.50	10.16	12.78	18.97	0.38	13.16	20.70
5260	1.15	1.50	10.16	12.81	19.10	0.38	13.19	20.84
5300	1.42	1.50	10.17	13.09	20.37	0.38	13.47	22.23
5320	-0.91	1.50	10.17	10.76	11.91	0.38	11.14	13.00
5500	-1.44	1.50	10.19	10.25	10.59	0.38	10.63	11.56
5580	-1.23	1.50	10.18	10.45	11.09	0.38	10.83	12.11
5680	-1.18	1.50	10.17	10.49	11.19	0.38	10.87	12.22
5700	-0.87	1.50	10.17	10.80	12.02	0.38	11.18	13.12
5720	-1.12	1.50	10.17	10.55	11.35	0.38	10.93	12.39
5745	-0.18	1.50	10.16	11.48	14.06	0.38	11.86	15.35
5785	-0.35	1.50	10.16	11.31	13.52	0.38	11.69	14.76
5825	-0.32	1.50	10.16	11.34	13.61	0.38	11.72	14.86

Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 61 % RH 25 deg. C / 39 % RH
Engineer Akihiko Maeda Takafumi Noguchi
Mode Tx 11n-40

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5190	-2.29	1.50	10.16	9.37	8.65	0.64	10.01	10.02
5230	-0.16	1.50	10.16	11.50	14.13	0.64	12.14	16.37
5270	-0.06	1.50	10.16	11.60	14.45	0.64	12.24	16.75
5310	-0.94	1.50	10.17	10.73	11.83	0.64	11.37	13.71
5510	-4.20	1.50	9.90	7.20	5.25	0.64	7.84	6.08
5550	-0.90	1.50	10.18	10.78	11.97	0.64	11.42	13.87
5670	-1.03	1.50	10.17	10.64	11.59	0.64	11.28	13.43
5710	-1.16	1.50	10.17	10.51	11.25	0.64	11.15	13.03
5755	-1.53	1.50	10.16	10.13	10.30	0.64	10.77	11.94
5795	-1.43	1.50	10.16	10.23	10.54	0.64	10.87	12.22

Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 20, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 61 % RH 25 deg. C / 39 % RH
Engineer Akihiko Maeda Takafumi Noguchi
Mode Tx 11ac-40

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5190	-2.28	1.50	10.16	9.38	8.67	0.75	10.13	10.30
5230	-0.12	1.50	10.16	11.54	14.26	0.75	12.29	16.94
5270	-0.05	1.50	10.16	11.61	14.49	0.75	12.36	17.22
5310	-0.93	1.50	10.17	10.74	11.86	0.75	11.49	14.09
5510	-4.16	1.50	9.90	7.24	5.30	0.75	7.99	6.30
5550	-0.92	1.50	10.18	10.76	11.91	0.75	11.51	14.16
5670	-0.99	1.50	10.17	10.68	11.69	0.75	11.43	13.90
5710	-1.14	1.50	10.17	10.53	11.30	0.75	11.28	13.43
5755	-1.45	1.50	10.16	10.21	10.50	0.75	10.96	12.47
5795	-1.37	1.50	10.16	10.29	10.69	0.75	11.04	12.71

Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power **(Reference data for RF Exposure)**

Report No.	13521383H		
Test place	Ise EMC Lab. No.6 Measurement Room		
Date	October 20, 2020	October 30, 2020	
Temperature / Humidity	19 deg. C / 61 % RH	25 deg. C / 39 % RH	
Engineer	Akihiko Maeda	Takafumi Noguchi	
Mode	Tx 11ac-80		

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average)		Duty factor [dB]	Result (Burst power average)	
				[dBm]	[mW]		[dBm]	[mW]
5210	-2.12	1.50	9.88	9.26	8.43	2.09	11.35	13.65
5290	-1.92	1.50	9.89	9.47	8.85	2.09	11.56	14.32
5530	-1.41	1.50	9.90	9.99	9.98	2.09	12.08	16.14
5610	-0.55	1.50	10.18	11.13	12.97	2.09	13.22	20.99
5690	-0.41	1.50	10.17	11.26	13.37	2.09	13.35	21.63
5775	-0.45	1.50	10.16	11.21	13.21	2.09	13.30	21.38

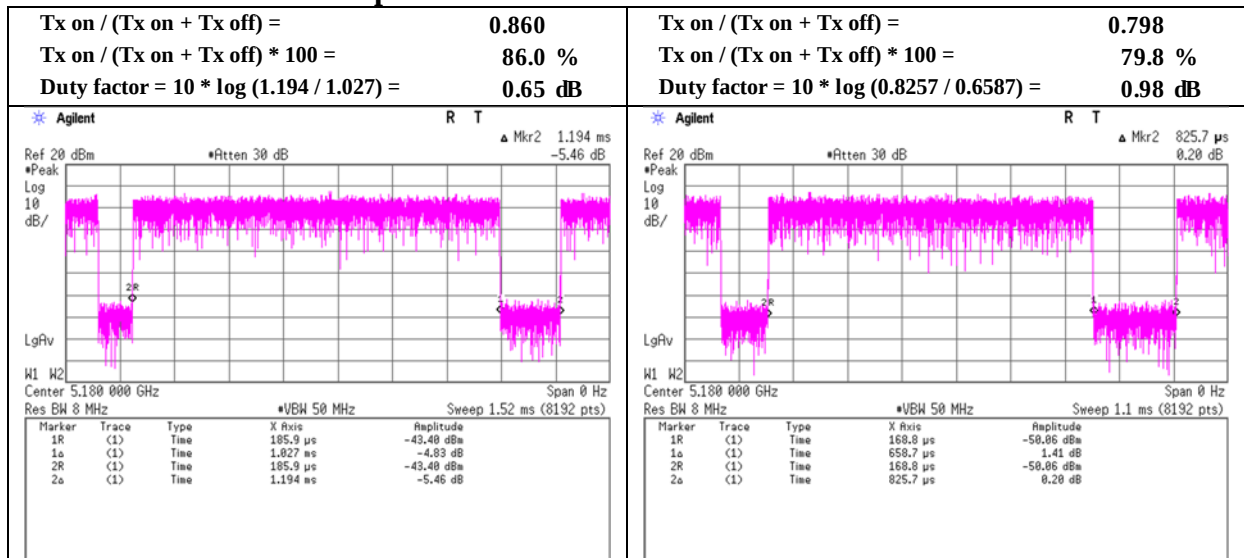
Sample Calculation:

Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

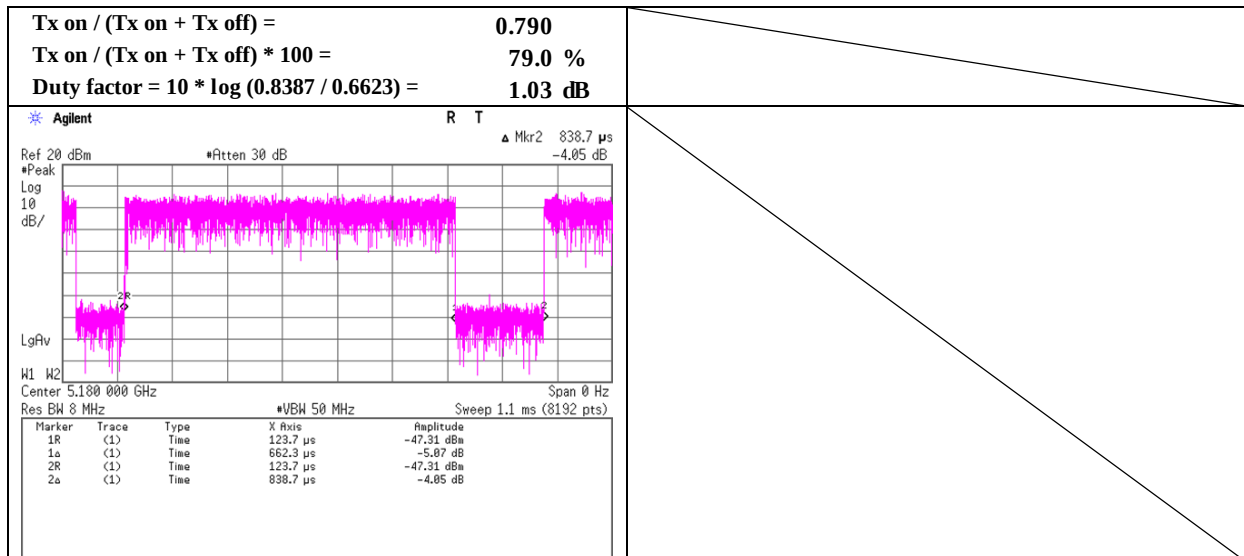
Burst rate confirmation

Report No. 13521383H
Test place Ise EMC Lab. No.6 Shielded Room
Date October 15, 2020
Temperature / Humidity 24 deg. C / 49 % RH
Engineer Tomohisa Nakagawa
Mode Tx

11a 12 Mbps



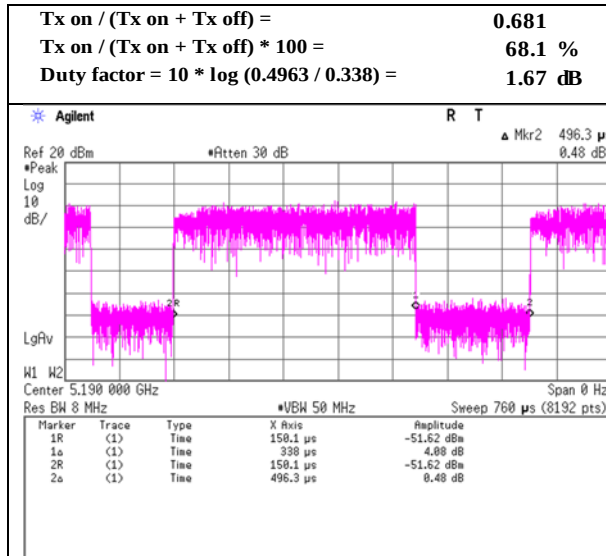
11ac-20 MCS 2



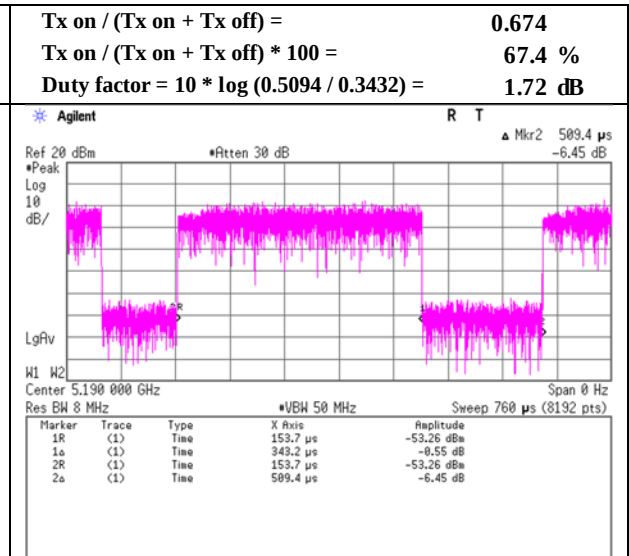
Burst rate confirmation

Report No. 13521383H
Test place Ise EMC Lab. No.6 Shielded Room
Date October 15, 2020
Temperature / Humidity 24 deg. C / 49 % RH
Engineer Tomohisa Nakagawa
Mode Tx

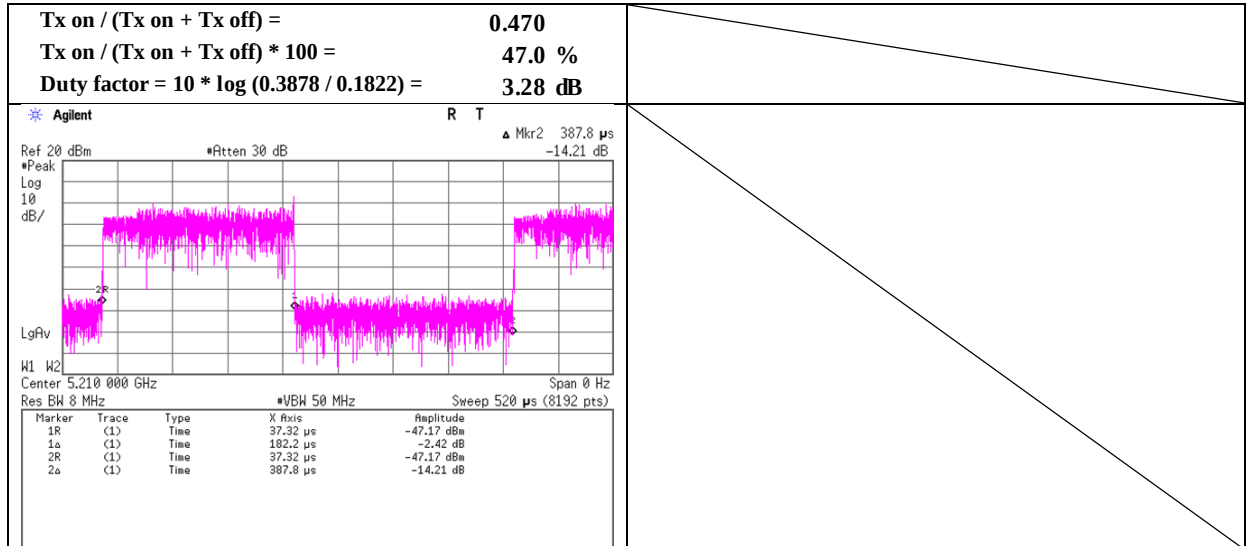
11n-40 MCS 2



11ac-40 MCS 2



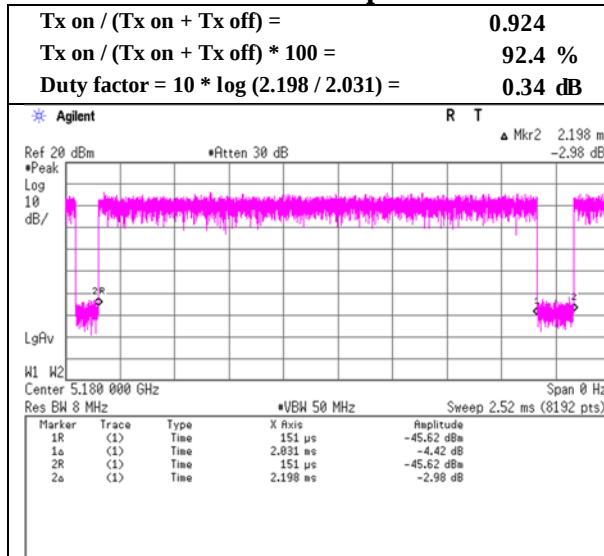
11ac-80 MCS 2



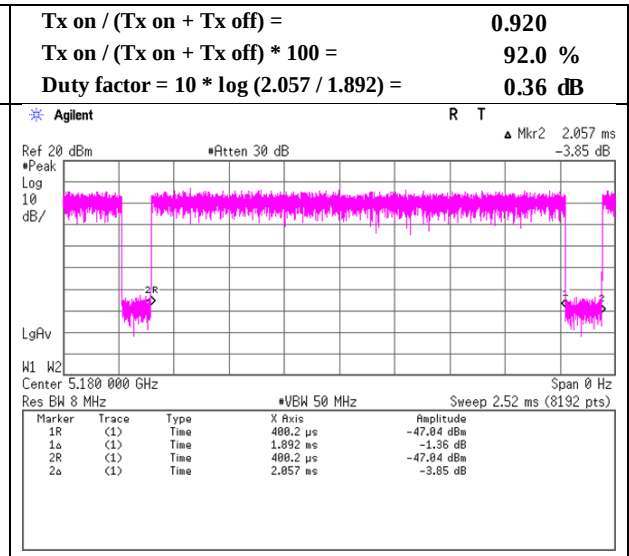
Burst rate confirmation

Report No. 13521383H
Test place Ise EMC Lab. No.6 Shielded Room
Date October 15, 2020
Temperature / Humidity 24 deg. C / 49 % RH
Engineer Tomohisa Nakagawa
Mode Tx

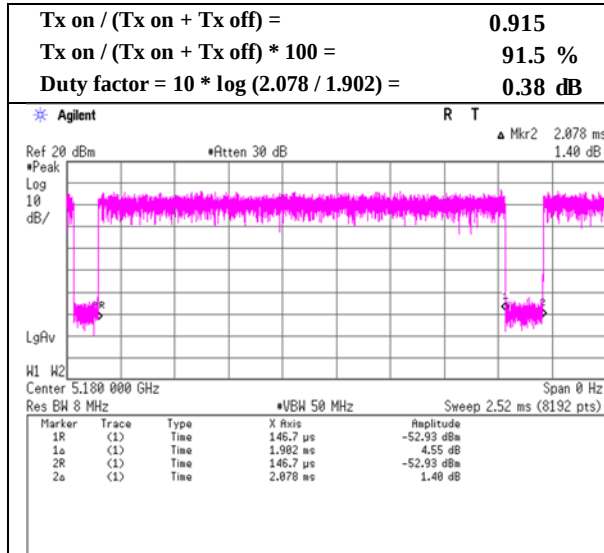
11a 6 Mbps



11n-20 MCS 0



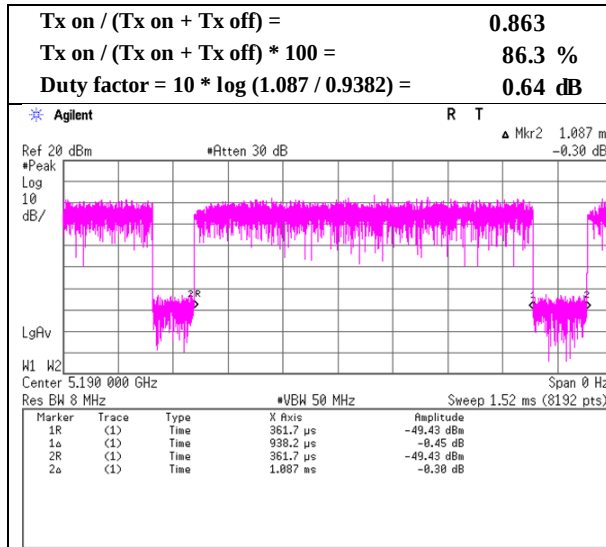
11ac-20 MCS 0



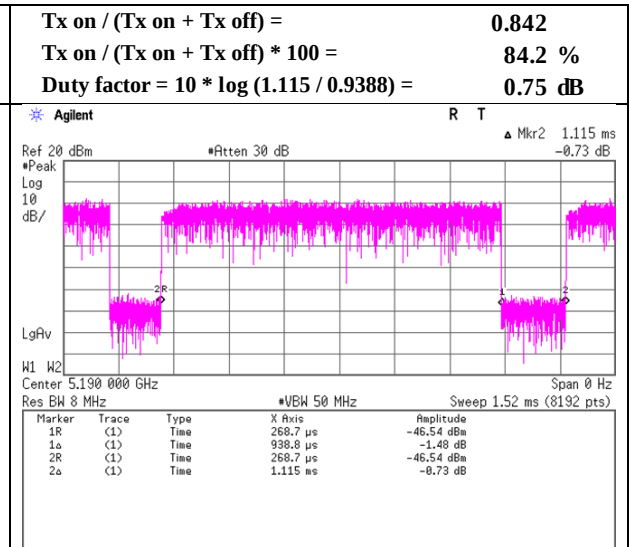
Burst rate confirmation

Report No. 13521383H
Test place Ise EMC Lab. No.6 Shielded Room
Date October 15, 2020
Temperature / Humidity 24 deg. C / 49 % RH
Engineer Tomohisa Nakagawa
Mode Tx

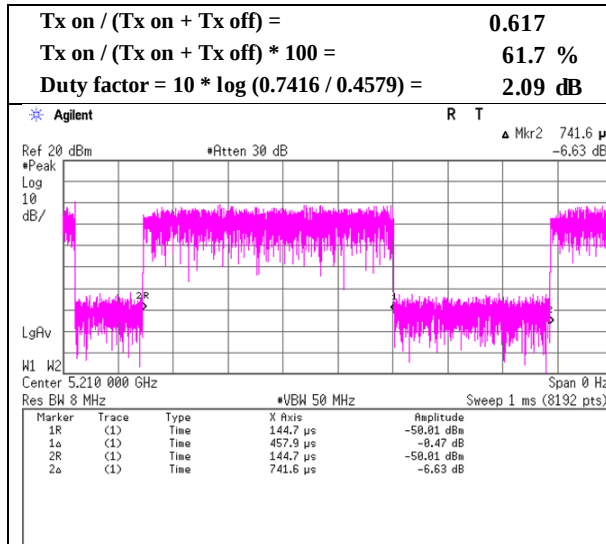
11n-40 MCS 0



11ac-40 MCS 0



11ac-80 MCS 0



Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 22, 2020
Temperature / Humidity 19 deg. C / 54 % RH 20 deg. C / 54 % RH
Engineer Hiroyuki Furutaka Hiroyuki Furutaka
Mode Tx 11a

11a

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5180	-11.05	1.50	10.16	0.65	3.0	0.00	1.26	11.00	9.74	4.26	17.00	12.74
5200	-9.83	1.50	10.16	0.65	3.0	0.00	2.48	11.00	8.52	5.48	17.00	11.52
5240	-10.45	1.50	10.16	0.65	3.0	0.00	1.86	11.00	9.14	4.86	17.00	12.14
5260	-9.95	1.50	10.16	0.65	3.0	0.00	2.37	11.00	8.64	5.37	17.00	11.64
5300	-9.65	1.50	10.17	0.65	3.0	0.00	2.67	11.00	8.33	5.67	17.00	11.33
5320	-11.07	1.50	10.17	0.65	3.0	0.00	1.25	11.00	9.75	4.25	17.00	12.75
5500	-11.12	1.50	10.19	0.65	3.0	0.00	1.22	11.00	9.78	4.22	17.00	12.78
5580	-10.95	1.50	10.18	0.65	3.0	0.00	1.38	11.00	9.62	4.38	17.00	12.62
5680	-11.34	1.50	10.17	0.65	3.0	0.00	0.98	11.00	10.02	3.98	17.00	13.02
5700	-11.35	1.50	10.17	0.65	3.0	0.00	0.97	11.00	10.03	3.97	17.00	13.03
5720	-11.59	1.50	10.17	0.65	3.0	0.00	0.73	11.00	10.27	3.73	17.00	13.27
5745	-13.60	1.50	10.16	0.65	3.0	0.27	-1.02	30.00	31.02	1.98	36.00	34.02
5785	-14.03	1.50	10.16	0.65	3.0	0.27	-1.45	30.00	31.45	1.55	36.00	34.45
5825	-14.14	1.50	10.16	0.65	3.0	0.27	-1.56	30.00	31.56	1.44	36.00	34.56

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log(\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW

Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

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Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 22, 2020
Temperature / Humidity 19 deg. C / 54 % RH 20 deg. C / 54 % RH
Engineer Hiroyuki Furutaka Hiroyuki Furutaka
Mode Tx 11n-20

11n-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5180	-10.78	1.50	10.16	0.98	3.0	0.00	1.86	11.00	9.14	4.86	17.00	12.14
5200	-8.95	1.50	10.16	0.98	3.0	0.00	3.70	11.00	7.31	6.70	17.00	10.31
5240	-9.35	1.50	10.16	0.98	3.0	0.00	3.30	11.00	7.71	6.30	17.00	10.71
5260	-11.67	1.50	10.16	0.98	3.0	0.00	0.98	11.00	10.03	3.98	17.00	13.03
5300	-8.50	1.50	10.17	0.98	3.0	0.00	4.15	11.00	6.85	7.15	17.00	9.85
5320	-10.85	1.50	10.17	0.98	3.0	0.00	1.80	11.00	9.20	4.80	17.00	12.20
5500	-11.60	1.50	10.19	0.98	3.0	0.00	1.07	11.00	9.93	4.07	17.00	12.93
5580	-10.98	1.50	10.18	0.98	3.0	0.00	1.68	11.00	9.32	4.68	17.00	12.32
5680	-11.48	1.50	10.17	0.98	3.0	0.00	1.17	11.00	9.83	4.17	17.00	12.83
5700	-11.31	1.50	10.17	0.98	3.0	0.00	1.34	11.00	9.66	4.34	17.00	12.66
5720	-11.59	1.50	10.17	0.98	3.0	0.00	1.06	11.00	9.94	4.06	17.00	12.94
5745	-13.42	1.50	10.16	0.98	3.0	0.27	-0.51	30.00	30.51	2.49	36.00	33.51
5785	-13.88	1.50	10.16	0.98	3.0	0.27	-0.97	30.00	30.97	2.03	36.00	33.97
5825	-14.09	1.50	10.16	0.98	3.0	0.27	-1.18	30.00	31.18	1.82	36.00	34.18

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log (\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

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Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 22, 2020
Temperature / Humidity 19 deg. C / 54 % RH 20 deg. C / 54 % RH
Engineer Hiroyuki Furutaka Hiroyuki Furutaka
Mode Tx 11ac-20

11ac-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5180	-11.10	1.50	10.16	1.03	3.0	0.00	1.59	11.00	9.41	4.59	17.00	12.41
5200	-9.17	1.50	10.16	1.03	3.0	0.00	3.52	11.00	7.48	6.52	17.00	10.48
5240	-8.91	1.50	10.16	1.03	3.0	0.00	3.78	11.00	7.22	6.78	17.00	10.22
5260	-9.19	1.50	10.16	1.03	3.0	0.00	3.51	11.00	7.50	6.51	17.00	10.50
5300	-8.58	1.50	10.17	1.03	3.0	0.00	4.12	11.00	6.88	7.12	17.00	9.88
5320	-10.88	1.50	10.17	1.03	3.0	0.00	1.82	11.00	9.18	4.82	17.00	12.18
5500	-11.27	1.50	10.19	1.03	3.0	0.00	1.45	11.00	9.55	4.45	17.00	12.55
5580	-10.80	1.50	10.18	1.03	3.0	0.00	1.91	11.00	9.09	4.91	17.00	12.09
5680	-11.35	1.50	10.17	1.03	3.0	0.00	1.35	11.00	9.65	4.35	17.00	12.65
5700	-11.41	1.50	10.17	1.03	3.0	0.00	1.29	11.00	9.71	4.29	17.00	12.71
5720	-11.86	1.50	10.17	1.03	3.0	0.00	0.84	11.00	10.16	3.84	17.00	13.16
5745	-13.51	1.50	10.16	1.03	3.0	0.27	-0.56	30.00	30.56	2.44	36.00	33.56
5785	-14.02	1.50	10.16	1.03	3.0	0.27	-1.07	30.00	31.07	1.93	36.00	34.07
5825	-13.68	1.50	10.16	1.03	3.0	0.27	-0.73	30.00	30.73	2.27	36.00	33.73

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log (\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

UL Japan, Inc.

Ise EMC Lab.

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Telephone : +81 596 24 8999

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Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 54 % RH 25 deg. C / 39 % RH
Engineer Hiroyuki Furutaka Takafumi Noguchi
Mode Tx 11n-40

11n-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5190	-16.41	1.50	10.16	1.67	3.0	0.00	-3.08	11.00	14.08	-0.08	17.00	17.08
5230	-14.09	1.50	10.16	1.67	3.0	0.00	-0.76	11.00	11.76	2.24	17.00	14.76
5270	-14.00	1.50	10.16	1.67	3.0	0.00	-0.67	11.00	11.67	2.33	17.00	14.67
5310	-14.76	1.50	10.17	1.67	3.0	0.00	-1.42	11.00	12.42	1.59	17.00	15.42
5510	-18.57	1.50	9.90	1.67	3.0	0.00	-5.50	11.00	16.50	-2.50	17.00	19.50
5550	-14.70	1.50	10.18	1.67	3.0	0.00	-1.35	11.00	12.35	1.65	17.00	15.35
5670	-14.85	1.50	10.17	1.67	3.0	0.00	-1.51	11.00	12.51	1.49	17.00	15.51
5710	-15.19	1.50	10.17	1.67	3.0	0.00	-1.85	11.00	12.85	1.15	17.00	15.85
5755	-18.51	1.50	10.16	1.67	3.0	0.27	-4.91	30.00	34.91	-1.91	36.00	37.91
5795	-18.66	1.50	10.16	1.67	3.0	0.27	-5.06	30.00	35.06	-2.06	36.00	38.06

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log (\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

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Ise EMC Lab.

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Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 54 % RH 25 deg. C / 39 % RH
Engineer Hiroyuki Furutaka Takafumi Noguchi
Mode Tx 11ac-40

11ac-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5190	-16.33	1.50	10.16	1.72	3.0	0.00	-2.95	11.00	13.95	0.05	17.00	16.95
5230	-14.16	1.50	10.16	1.72	3.0	0.00	-0.78	11.00	11.78	2.22	17.00	14.78
5270	-14.17	1.50	10.16	1.72	3.0	0.00	-0.79	11.00	11.79	2.21	17.00	14.79
5310	-15.55	1.50	10.17	1.72	3.0	0.00	-2.16	11.00	13.16	0.84	17.00	16.16
5510	-18.55	1.50	9.90	1.72	3.0	0.00	-5.43	11.00	16.43	-2.43	17.00	19.43
5550	-14.64	1.50	10.18	1.72	3.0	0.00	-1.24	11.00	12.24	1.76	17.00	15.24
5670	-14.80	1.50	10.17	1.72	3.0	0.00	-1.41	11.00	12.41	1.59	17.00	15.41
5710	-15.02	1.50	10.17	1.72	3.0	0.00	-1.63	11.00	12.63	1.37	17.00	15.63
5755	-18.41	1.50	10.16	1.72	3.0	0.27	-4.76	30.00	34.76	-1.76	36.00	37.76
5795	-18.61	1.50	10.16	1.72	3.0	0.27	-4.96	30.00	34.96	-1.96	36.00	37.96

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log (\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

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Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 54 % RH 25 deg. C / 39 % RH
Engineer Hiroyuki Furutaka Takafumi Noguchi
Mode Tx 11ac-80

11ac-80

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5210	-19.07	1.50	9.88	3.28	3.0	0.00	-4.41	11.00	15.41	-1.41	17.00	18.41
5290	-19.36	1.50	9.89	3.28	3.0	0.00	-4.69	11.00	15.69	-1.69	17.00	18.69
5530	-18.62	1.50	9.90	3.28	3.0	0.00	-3.94	11.00	14.94	-0.94	17.00	17.94
5610	-17.76	1.50	10.18	3.28	3.0	0.00	-2.80	11.00	13.80	0.21	17.00	16.80
5690	-17.98	1.50	10.17	3.28	3.0	0.00	-3.03	11.00	14.03	-0.03	17.00	17.03
5775	-20.64	1.50	10.16	3.28	3.0	0.27	-5.43	30.00	35.43	-2.43	36.00	38.43

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = $10 * \log (\text{Specified bandwidth} / \text{Measured bandwidth})$

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

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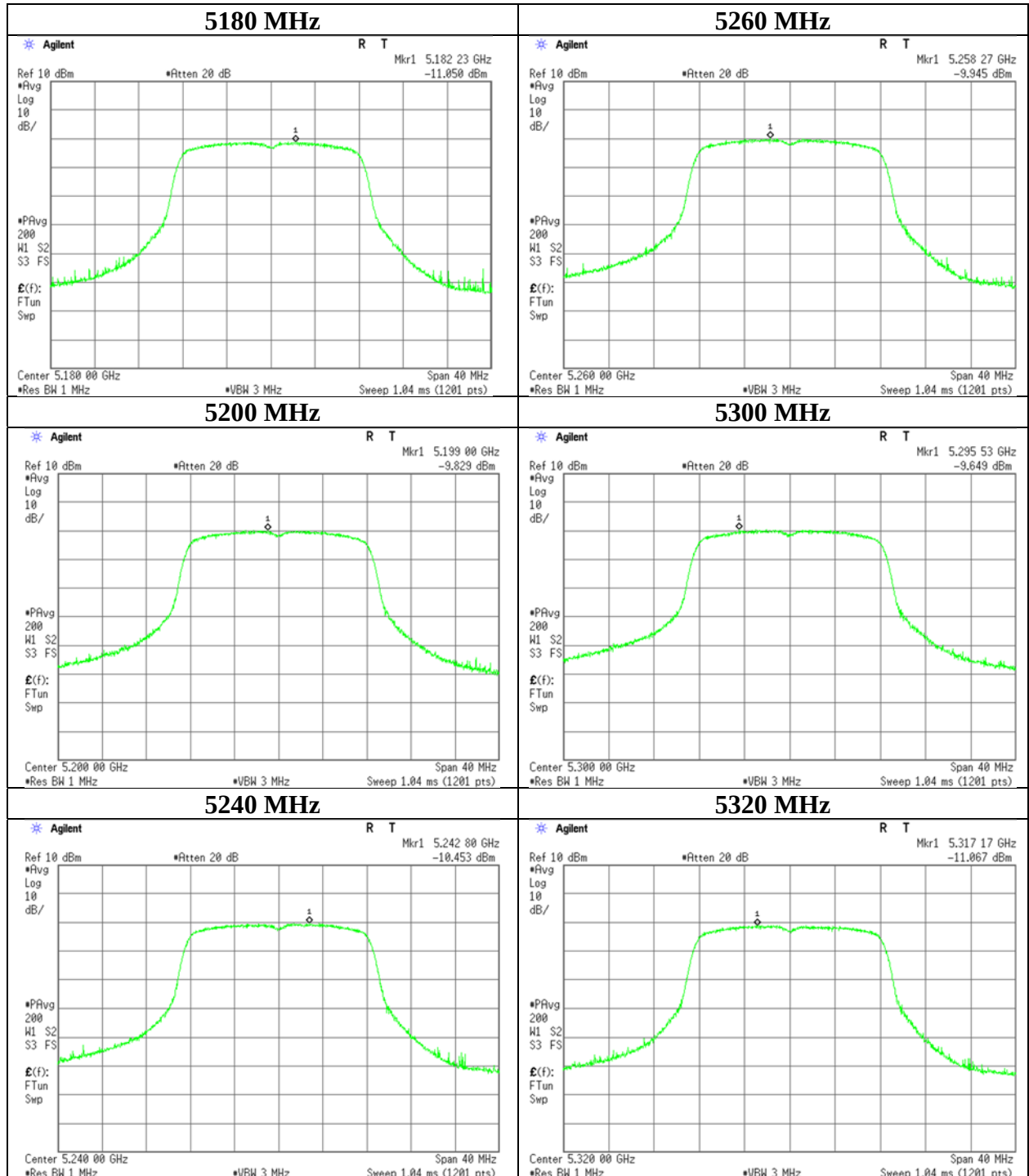
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No.	13521383H
Test place	Ise EMC Lab. No.6 Measurement Room
Date	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11a

11a



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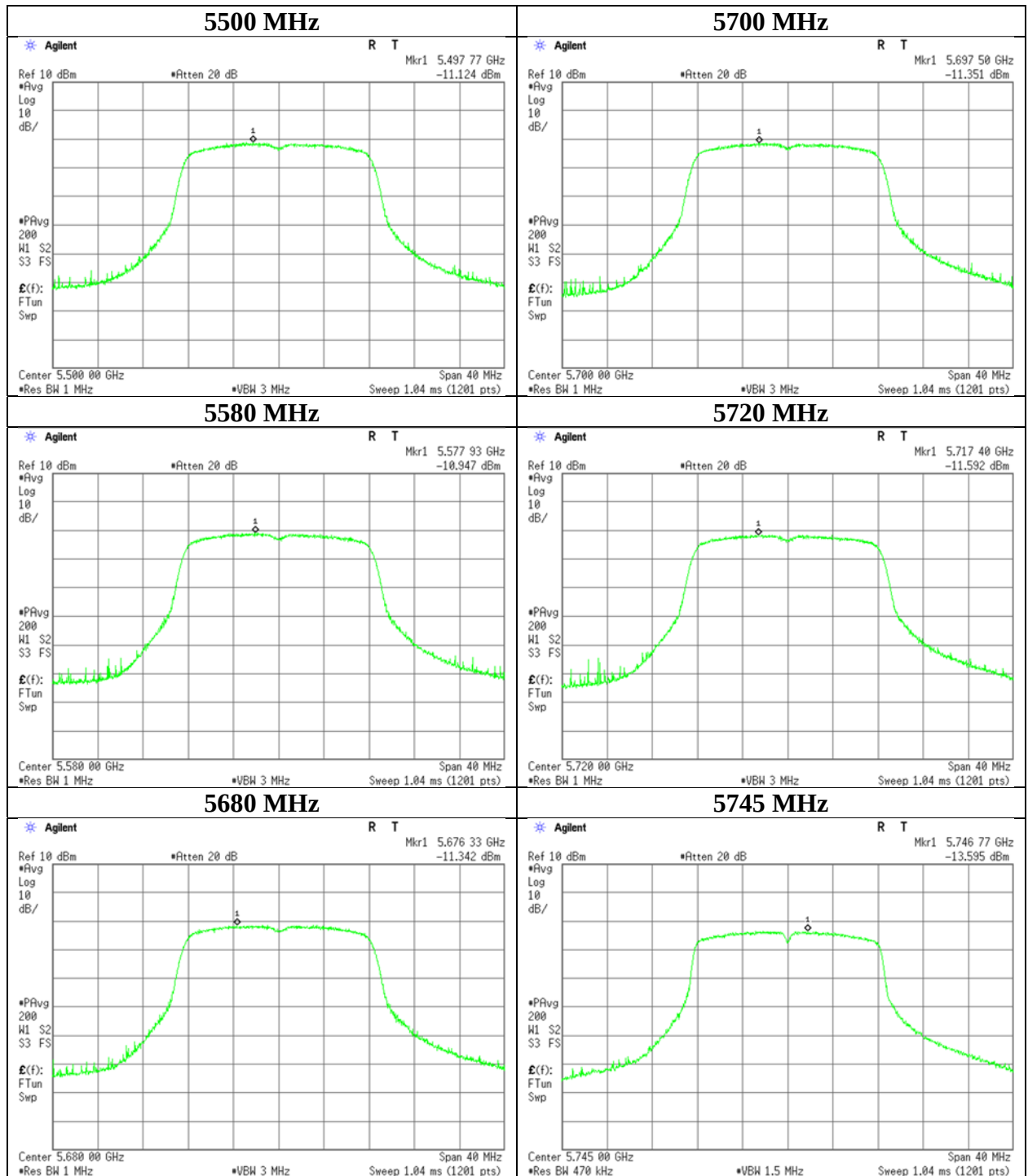
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka
Mode Tx 11a

11a



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Ise EMC Lab.

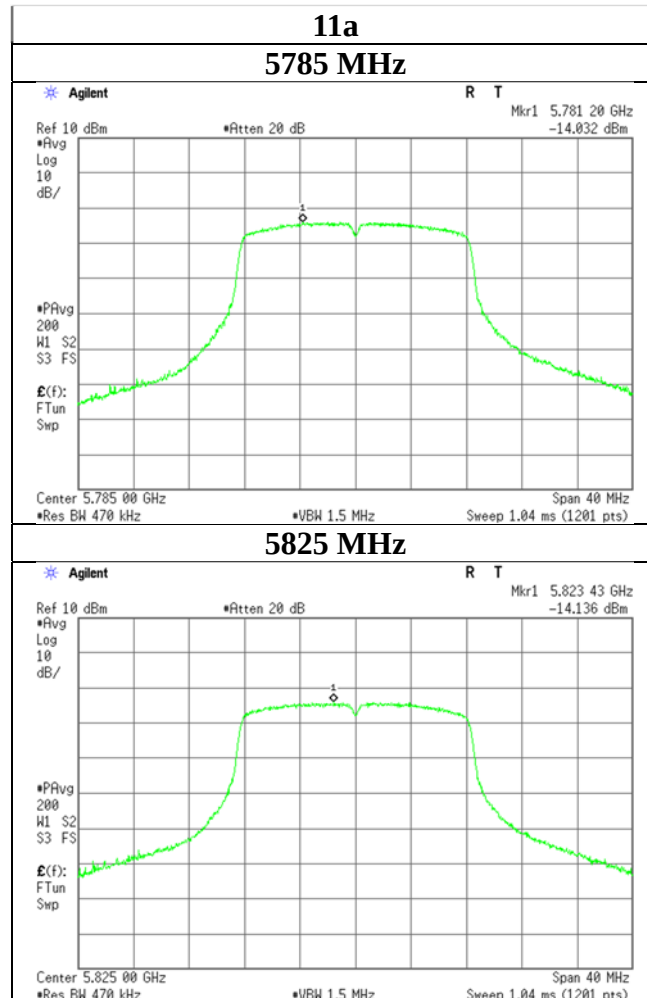
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

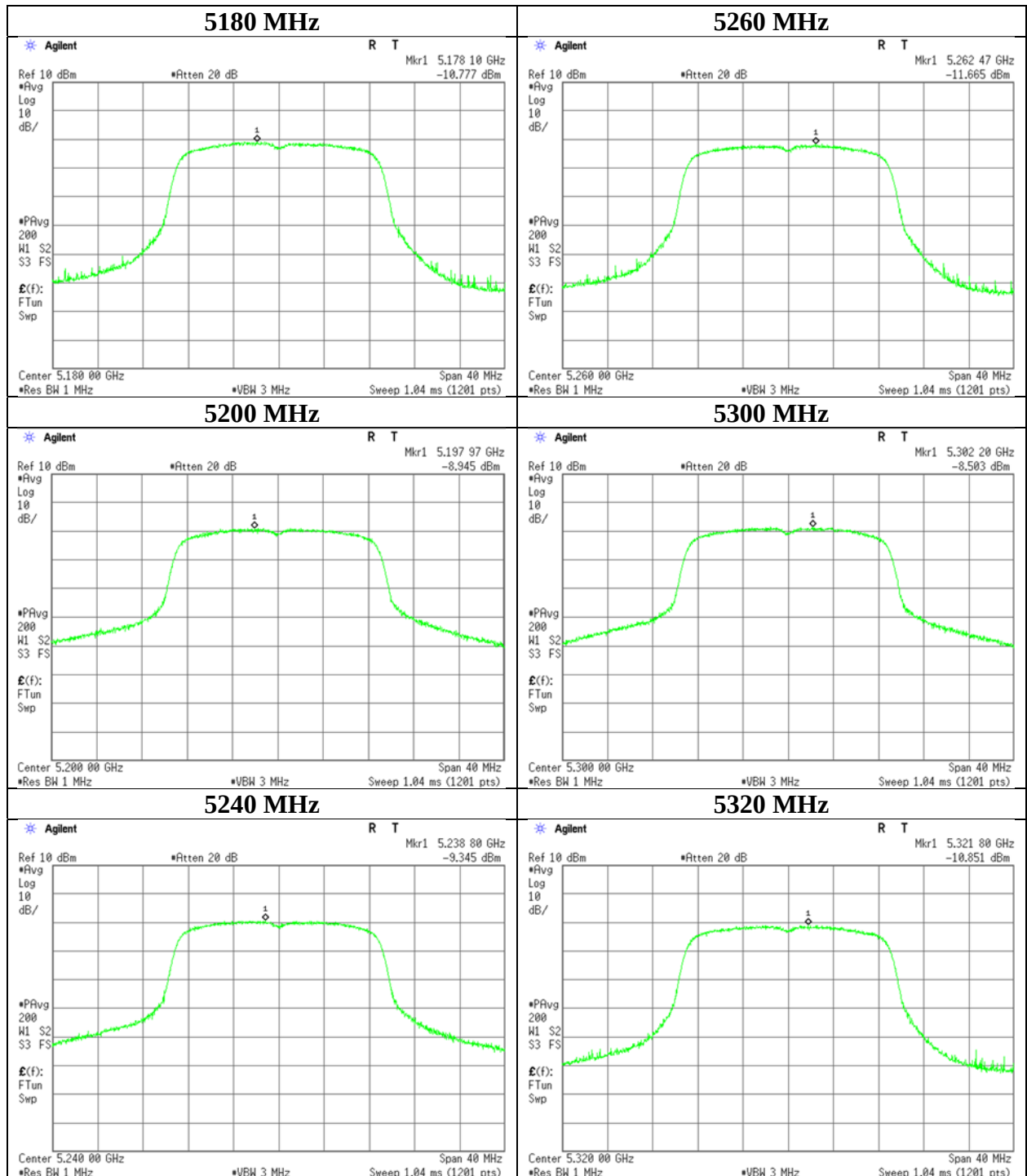
Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka Hiroyuki Furutaka
Mode Tx 11a



Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka
Mode Tx 11n-20

11n-20



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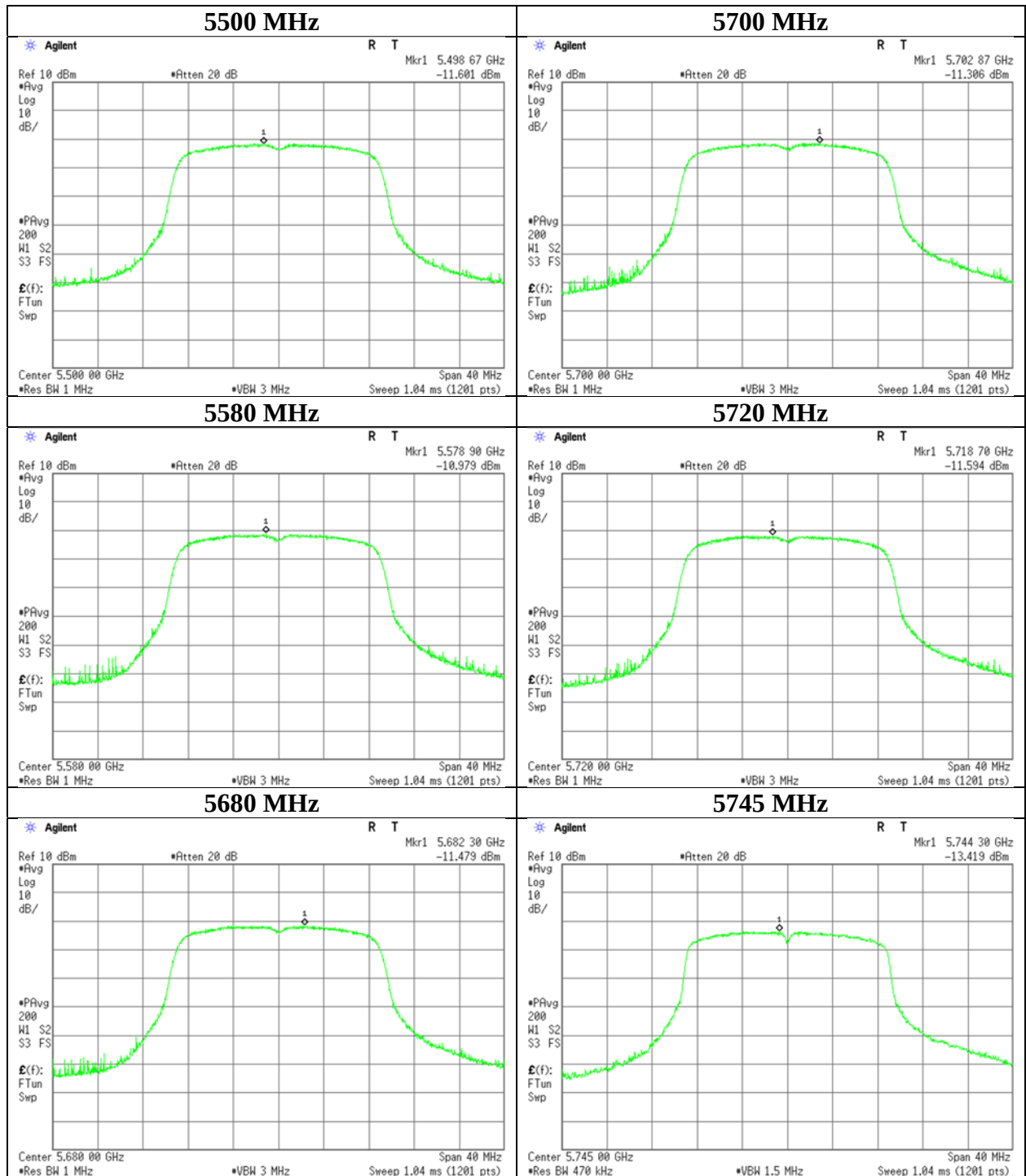
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka
Mode Tx 11n-20

11n-20



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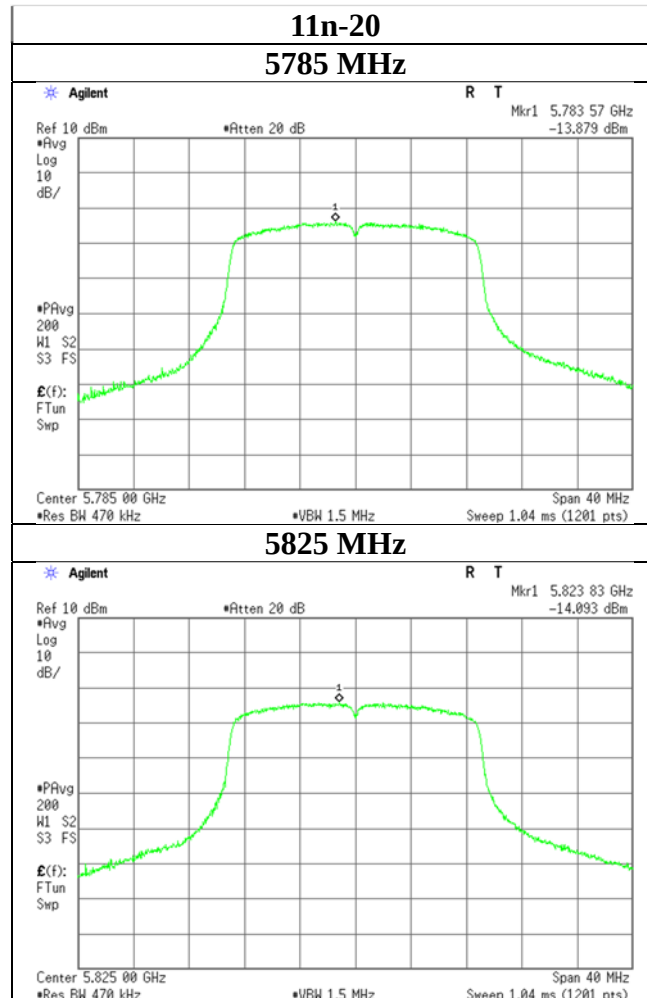
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Facsimile : +81 596 24 8124

Maximum Power Spectral Density

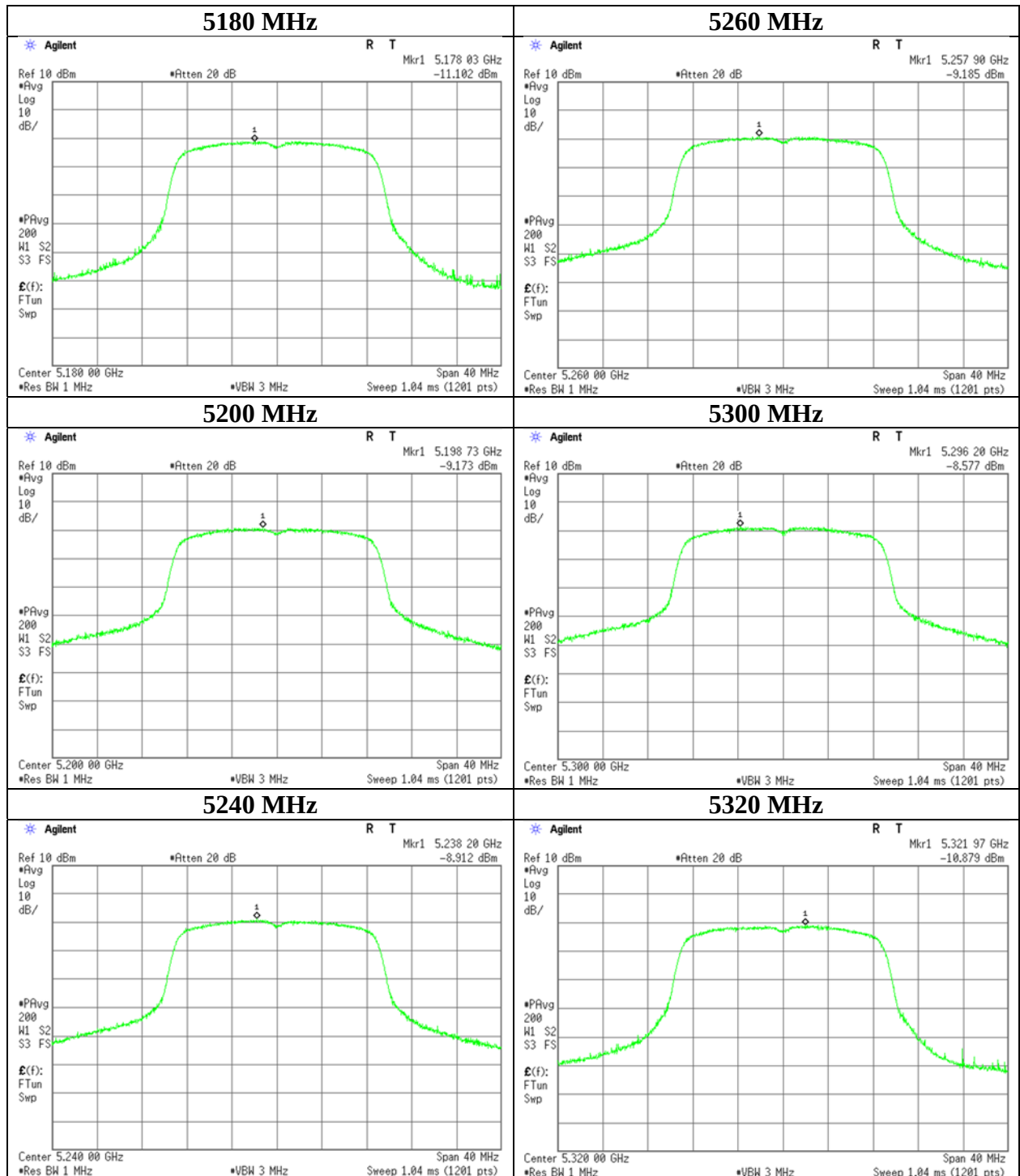
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Test place	Ise EMC Lab. No.6 Measurement Room	
Date	October 21, 2020	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka	Hiroyuki Furutaka
Mode	Tx 11n-20	



Maximum Power Spectral Density

Report No.	13521383H
Test place	Ise EMC Lab. No.6 Measurement Room
Date	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11ac-20

11ac-20



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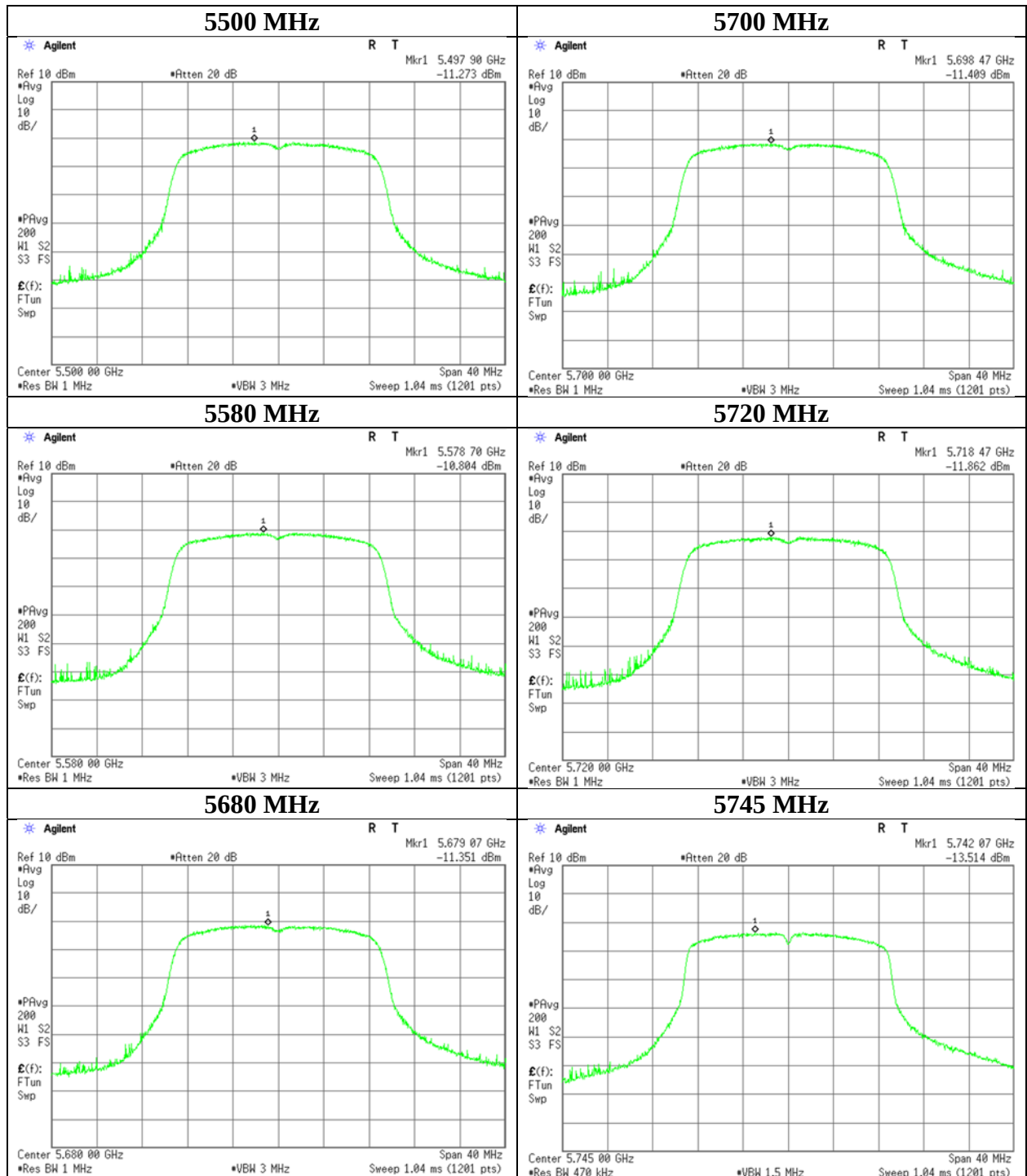
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka
Mode Tx 11ac-20

11ac-20



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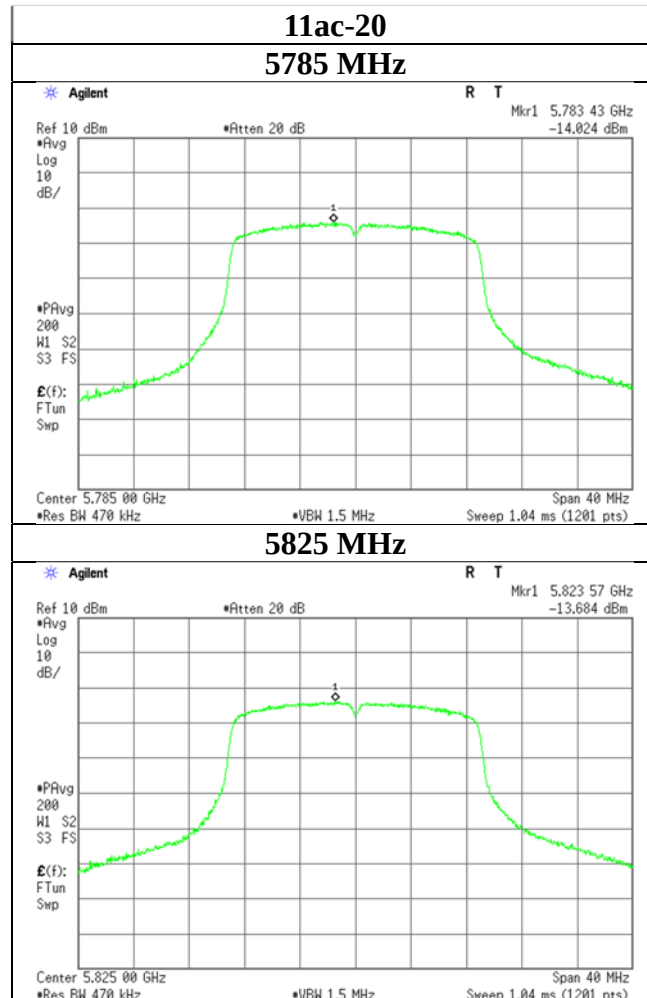
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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

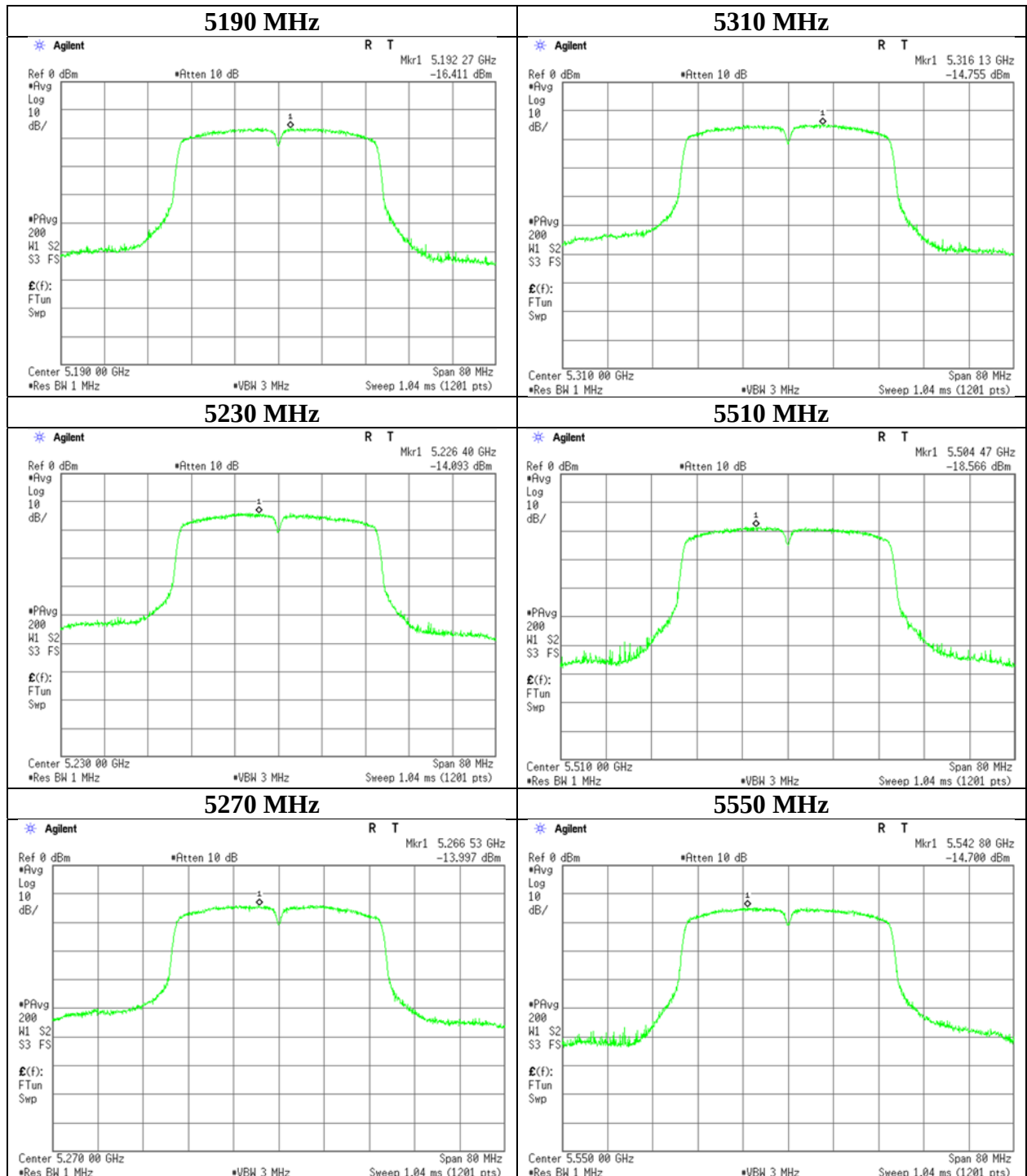
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Test place	Ise EMC Lab. No.6 Measurement Room	
Date	October 21, 2020	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka	Hiroyuki Furutaka
Mode	Tx 11ac-20	



Maximum Power Spectral Density

Report No.	13521383H
Test place	Ise EMC Lab. No.6 Measurement Room
Date	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11n-40
	October 30, 2020
	25 deg. C / 39 % RH
	Takafumi Noguchi

11n-40



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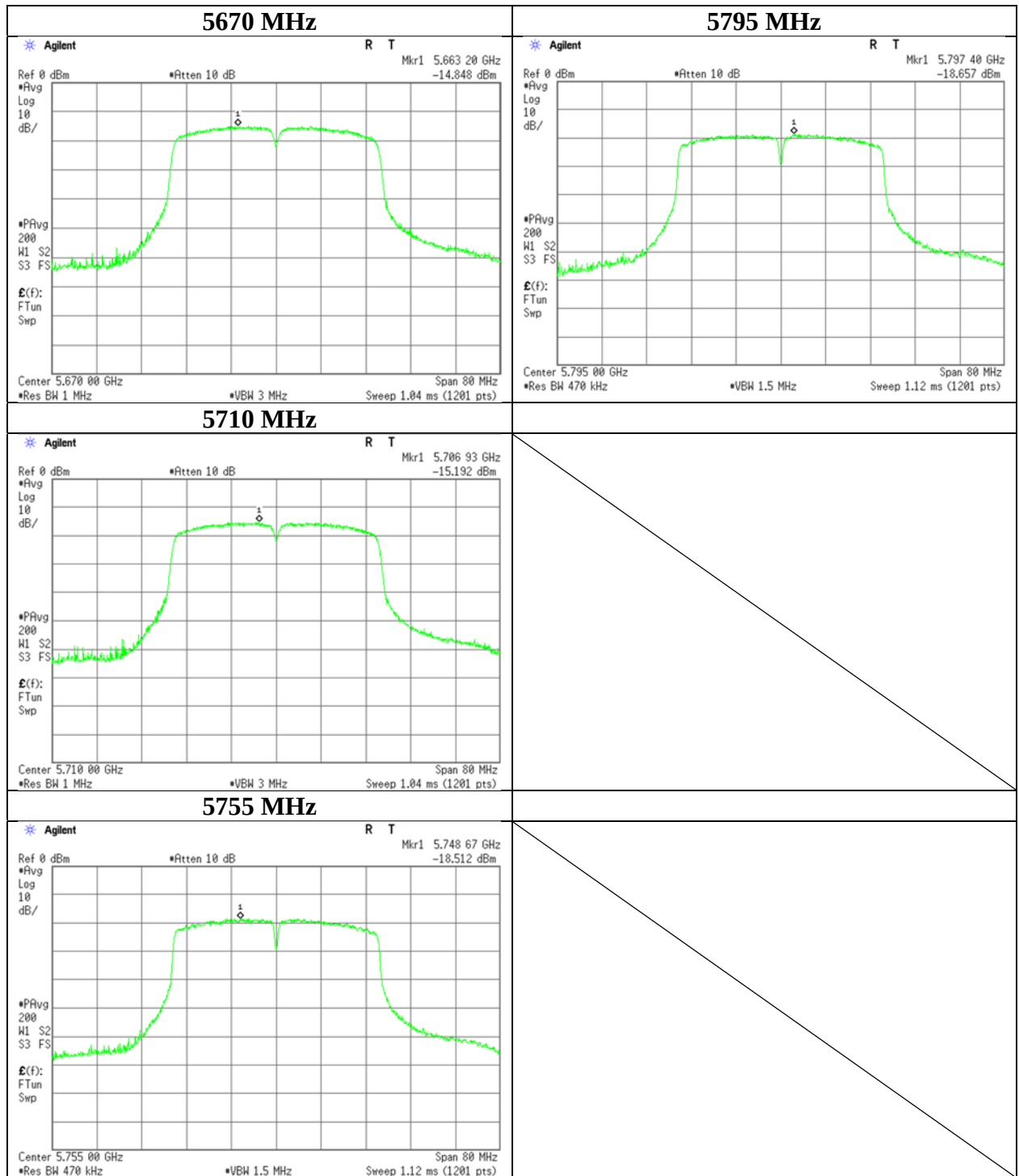
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No.	13521383H	
Test place	Ise EMC Lab. No.6 Measurement Room	
Date	October 21, 2020	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka	Hiroyuki Furutaka
Mode	Tx 11n-40	

11n-40



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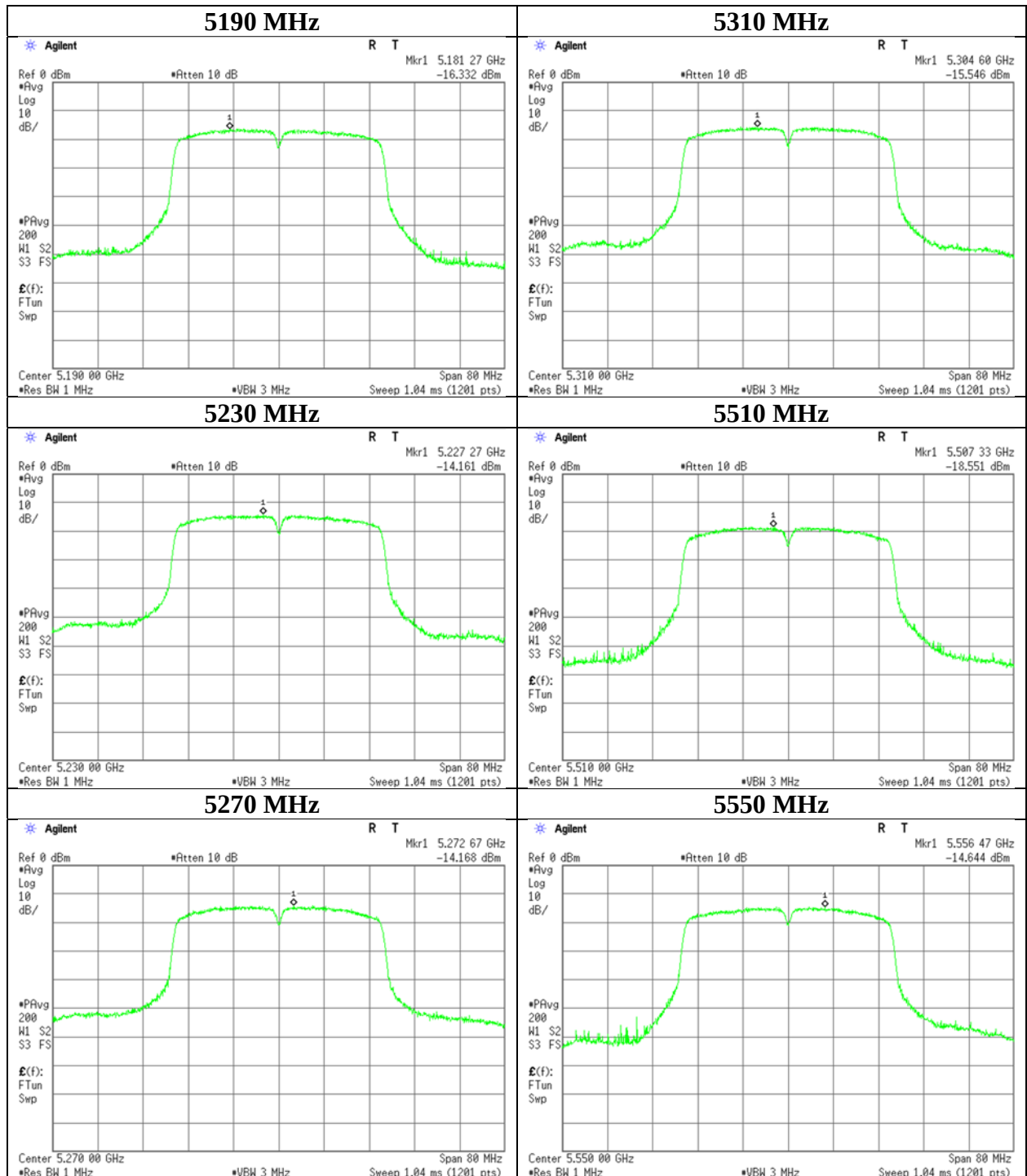
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No.	13521383H
Test place	Ise EMC Lab. No.6 Measurement Room
Date	October 21, 2020
Temperature / Humidity	19 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11ac-40
	October 30, 2020
	25 deg. C / 39 % RH
	Takafumi Noguchi

11ac-40



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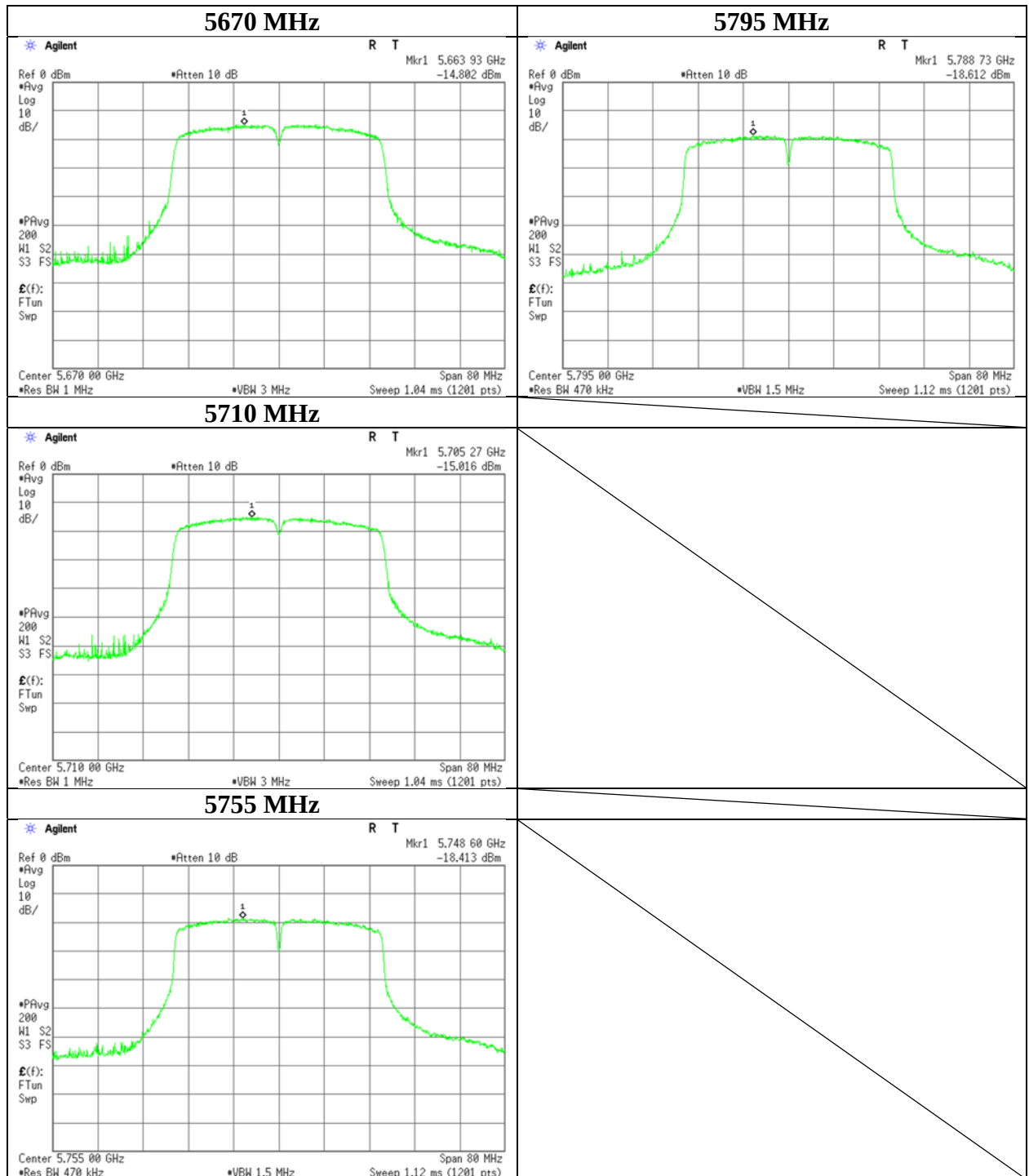
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020
Temperature / Humidity 19 deg. C / 54 % RH
Engineer Hiroyuki Furutaka
Mode Tx 11ac-40

11ac-40



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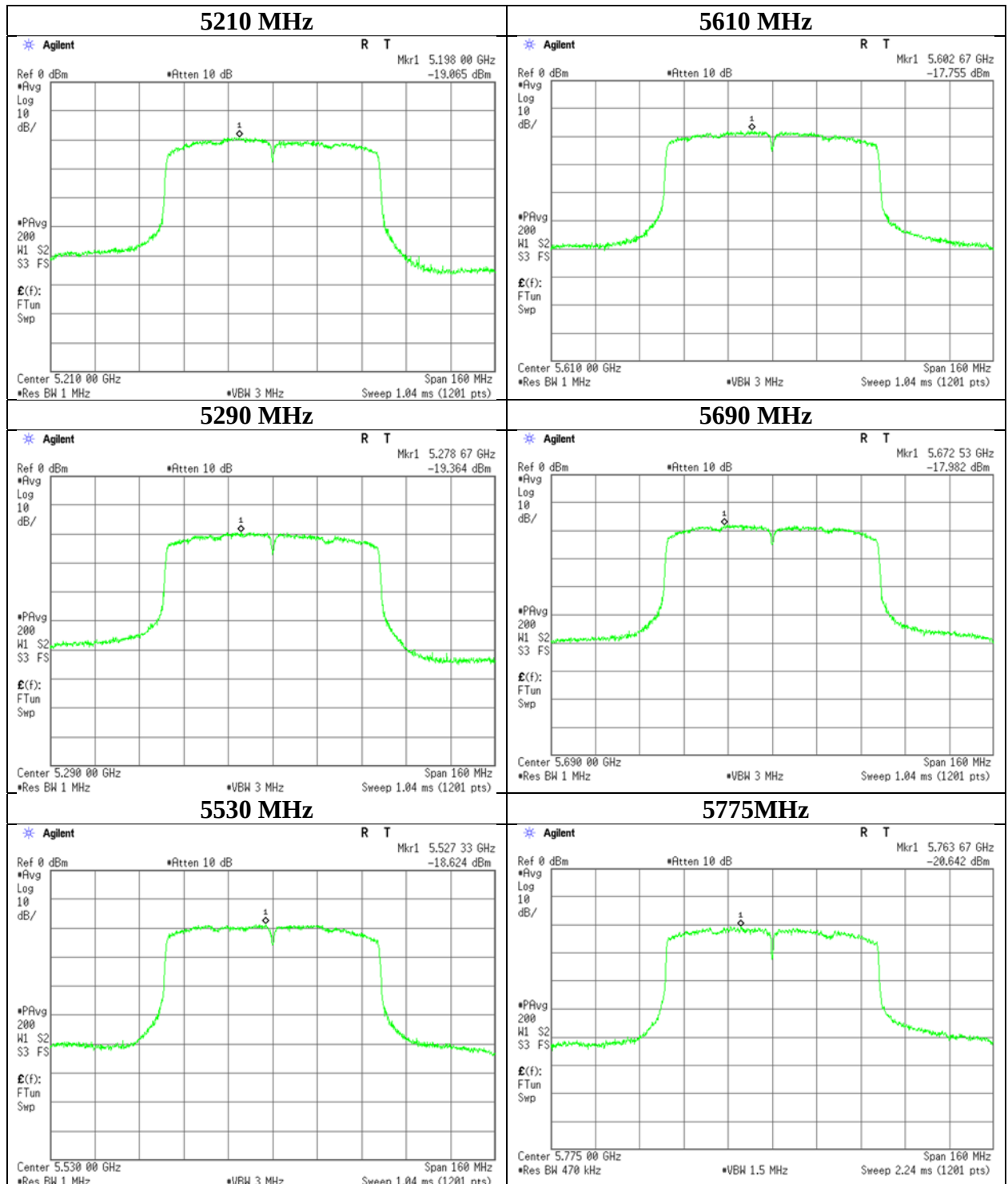
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Report No. 13521383H
Test place Ise EMC Lab. No.6 Measurement Room
Date October 21, 2020 October 30, 2020
Temperature / Humidity 19 deg. C / 54 % RH 25 deg. C / 39 % RH
Engineer Hiroyuki Furutaka Takafumi Noguchi
Mode Tx 11ac-80

11ac-80



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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Yuta Moriya	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5180 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	58.0	35.5	32.4	7.0	31.2	-	66.2	43.7	73.9	53.9	7.7	10.2	*1)
Hori.	10360.0	50.6	-	39.8	-2.5	32.9	-	54.9	-	68.2	-	13.3	-	
Hori.	15540.0	44.1	33.8	38.2	-1.2	32.5	-	48.6	38.4	73.9	53.9	25.3	15.5	Floor noise
Hori.	20720.0	47.8	43.0	38.0	-2.0	33.0	-	50.9	46.1	73.9	53.9	23.1	7.9	
Hori.	31080.0	68.6	-	43.5	3.3	75.9	-	39.4	-	68.2	-	28.8	-	
Vert.	5150.0	57.6	35.0	32.4	7.0	31.2	-	65.8	43.2	73.9	53.9	8.1	10.7	*1)
Vert.	10360.0	48.4	-	39.8	-2.5	32.9	-	52.8	-	68.2	-	15.4	-	
Vert.	15540.0	42.0	33.6	38.2	-1.2	32.5	-	46.5	38.1	73.9	53.9	27.4	15.8	Floor noise
Vert.	20720.0	48.6	43.6	38.0	-2.0	33.0	-	51.7	46.7	73.9	53.9	22.3	7.3	
Vert.	31080.0	67.8	-	43.5	3.3	75.9	-	38.7	-	68.2	-	29.5	-	

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

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

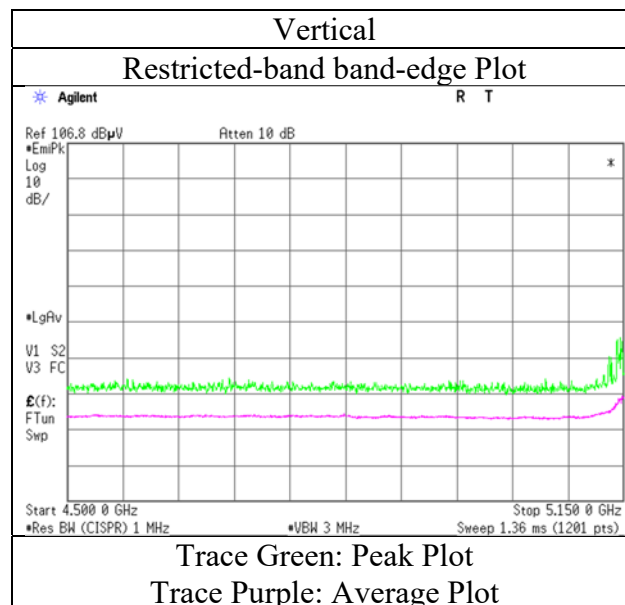
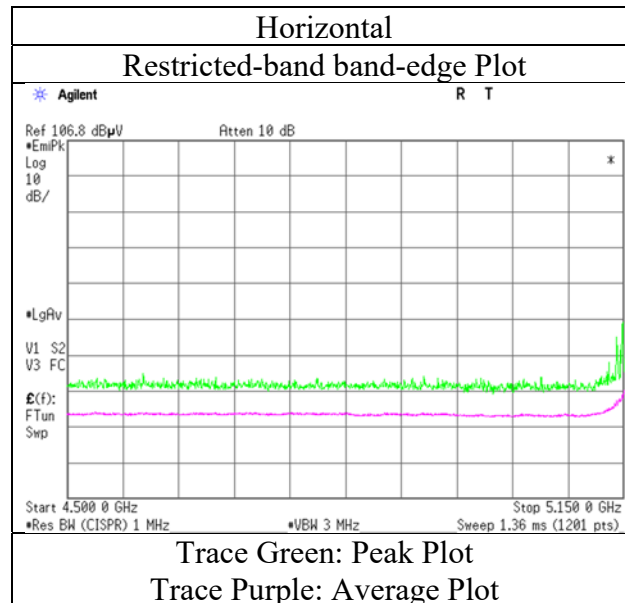
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	20 deg. C / 44 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
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. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 26, 2020
Temperature / Humidity 20 deg. C / 44 % RH
Engineer Yuta Moriya
(1 GHz - 10 GHz)
Mode Tx 11a 5200 MHz

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	50.2	31.9	32.4	7.0	31.2	-	58.4	40.2	73.9	53.9	15.5	13.8	*1)
Vert.	5150.0	49.8	32.0	32.4	7.0	31.2	-	58.0	40.2	73.9	53.9	15.9	13.7	*1)

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

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

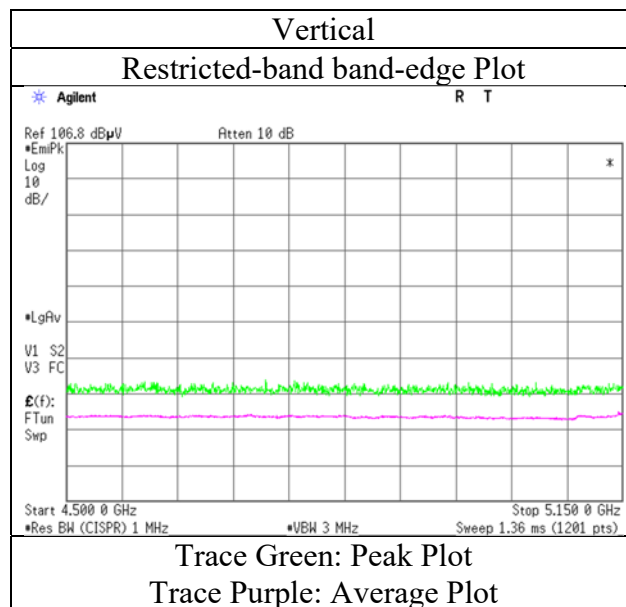
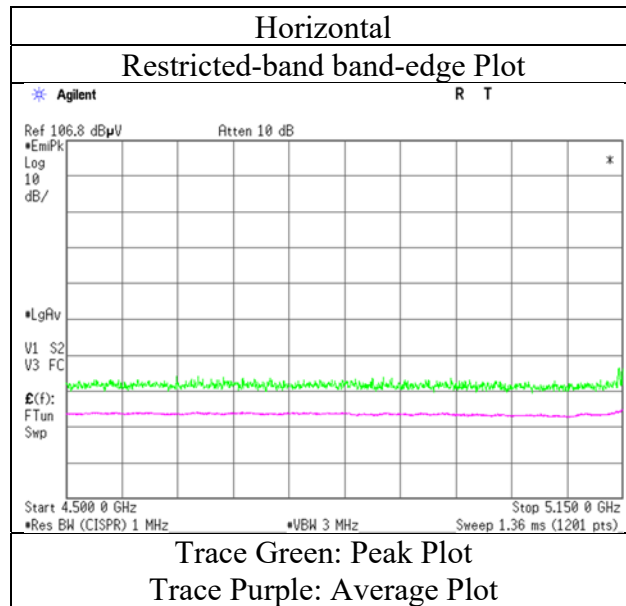
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log(4 m / 3.0 m) = 2.5 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	Ise EMC Lab.
Date	No.4
Temperature / Humidity	October 26, 2020
Engineer	20 deg. C / 44 % RH
	Yuta Moriya
Mode	Tx 11a 5200 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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Yuta Moriya	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5260 MHz			

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP) Reading (PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP) Result (PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP) Limit (PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP) Margin (PK) [dB]	Margin (AV) [dB]	Remark
Hori.	10520.0	51.1	-	39.9	-2.5	33.0	-	55.5	-	68.2	-	12.7	-	Floor noise
Hori.	15780.0	43.9	33.5	37.5	-1.2	32.5	-	47.7	37.3	73.9	53.9	26.2	16.6	
Hori.	21040.0	47.0	40.6	38.1	-1.9	33.1	-	50.1	43.7	73.9	53.9	23.8	10.2	
Hori.	31560.0	65.7	54.7	43.7	3.4	75.0	-	37.7	26.7	73.9	53.9	36.2	-	
Vert.	10520.0	49.7	-	39.9	-2.5	33.0	-	54.1	-	68.2	-	14.1	-	Floor noise
Vert.	15780.0	41.6	33.4	37.5	-1.2	32.5	-	45.4	37.3	73.9	53.9	28.5	16.6	
Vert.	21040.0	47.6	42.1	38.1	-1.9	33.1	-	50.7	45.2	73.9	53.9	23.2	8.7	
Vert.	31560.0	67.1	55.6	43.7	3.4	75.0	-	39.2	27.6	73.9	53.9	34.7	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 10 GHz - 40 GHz $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

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Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 26, 2020
Temperature / Humidity 20 deg. C / 44 % RH
Engineer Yuta Moriya
(1 GHz - 10 GHz)
Mode Tx 11a 5300 MHz

Polarity	Frequency	Reading (QP)	Reading (AV)	Ant.	Loss	Gain	Duty	Result (QP)	Result (AV)	Limit (QP)	Limit (AV)	Margin (QP)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	48.6	32.1	31.8	7.1	31.2	-	56.2	39.7	73.9	53.9	17.7	14.2	*1)
Vert.	5350.0	49.1	32.2	31.8	7.1	31.2	-	56.7	39.9	73.9	53.9	17.2	14.1	*1)

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

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

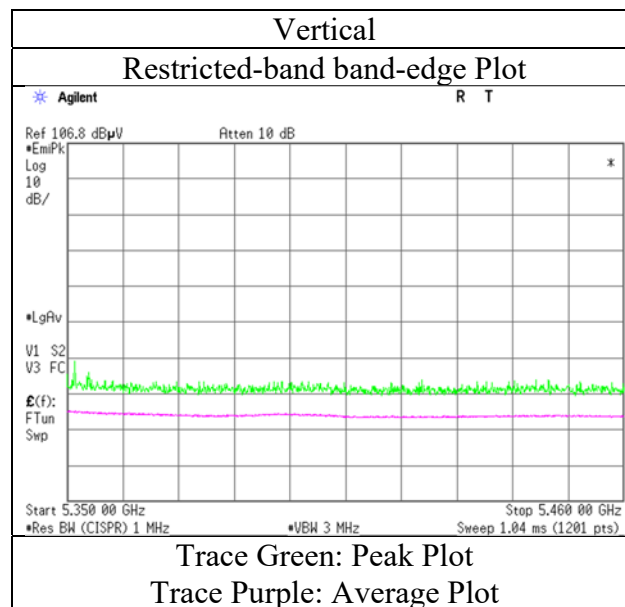
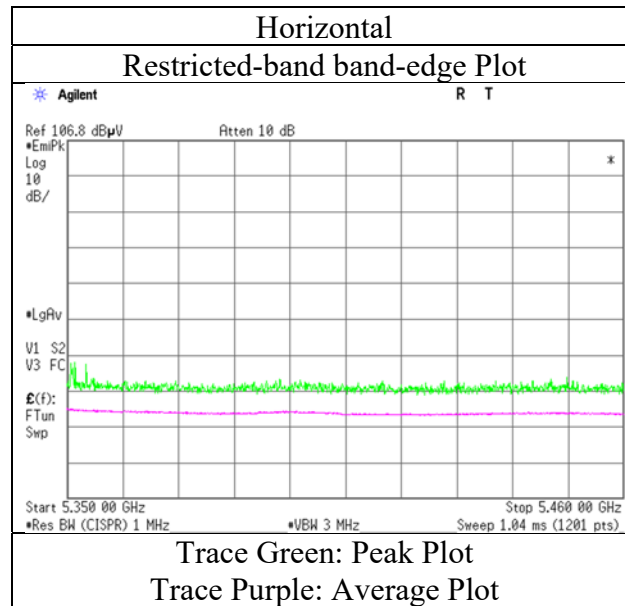
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	20 deg. C / 44 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11a 5300 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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Yuta Moriya	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5320 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	57.2	34.4	31.8	7.1	31.2	-	64.9	42.0	73.9	53.9	9.1	11.9	*1)
Hori.	10640.0	51.4	43.7	39.7	-2.4	33.0	-	55.7	48.0	73.9	53.9	18.2	5.9	
Hori.	15960.0	43.4	33.8	37.8	-1.1	32.6	-	47.5	37.9	73.9	53.9	26.4	16.0	Floor noise
Hori.	21280.0	47.2	41.2	38.2	-1.9	33.1	-	50.4	44.4	73.9	53.9	23.5	9.5	
Hori.	31920.0	66.6	-	43.7	3.4	74.3	-	39.4	-	68.2	-	28.8	-	
Vert.	5350.0	56.3	34.0	31.8	7.1	31.2	-	64.0	41.7	73.9	53.9	9.9	12.2	*1)
Vert.	10640.0	49.4	43.2	39.7	-2.4	33.0	-	53.7	47.5	73.9	53.9	20.2	6.4	
Vert.	15960.0	44.1	33.7	37.8	-1.1	32.6	-	48.2	37.7	73.9	53.9	25.8	16.2	Floor noise
Vert.	21280.0	47.0	40.4	38.2	-1.9	33.1	-	50.2	43.6	73.9	53.9	23.7	10.3	
Vert.	31920.0	65.9	-	43.7	3.4	74.3	-	38.7	-	68.2	-	29.5	-	

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

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

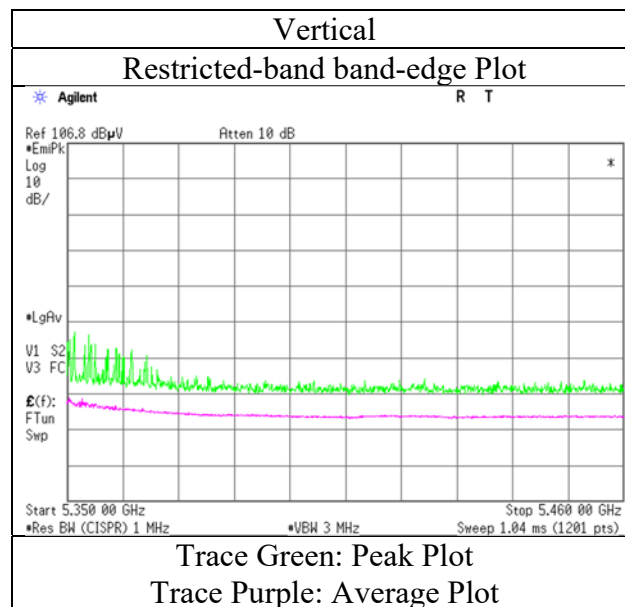
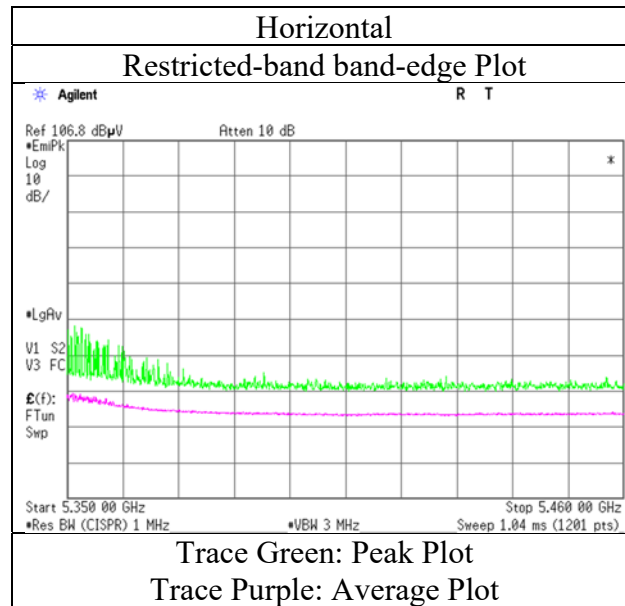
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	20 deg. C / 44 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
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.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5500 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3666.7	45.6	39.7	29.2	6.3	31.4	-	49.6	43.7	73.9	53.9	24.3	10.2	
Hori.	5460.0	53.0	33.8	32.1	7.2	31.3	-	61.0	41.8	68.2	53.9	7.3	12.2	*1)
Hori.	5470.0	56.0	-	32.1	7.2	31.3	-	64.0	-	68.2	-	4.2	-	*1)
Hori.	11000.0	50.4	41.8	40.0	-2.2	33.2	-	55.0	46.4	73.9	53.9	18.9	7.6	
Hori.	16500.0	44.0	-	40.4	-1.0	32.6	-	50.9	-	68.2	-	17.4	-	Floor noise
Hori.	22000.0	48.8	42.5	38.3	-1.8	33.1	-	52.2	45.9	73.9	53.9	21.7	8.0	
Hori.	33000.0	67.6	-	43.8	3.8	75.1	-	40.1	-	68.2	-	28.1	-	
Vert.	3666.7	46.1	40.3	29.2	6.3	31.4	-	50.1	44.3	73.9	53.9	23.8	9.6	
Vert.	5460.0	52.1	33.8	32.1	7.2	31.3	-	60.0	41.7	68.2	53.9	8.2	12.2	*1)
Vert.	5470.0	57.5	-	32.1	7.2	31.3	-	65.5	-	68.2	-	2.7	-	*1)
Vert.	11000.0	49.1	41.1	40.0	-2.2	33.2	-	53.7	45.7	73.9	53.9	20.2	8.3	
Vert.	16500.0	44.1	-	40.4	-1.0	32.6	-	50.9	-	68.2	-	17.3	-	Floor noise
Vert.	22000.0	47.9	41.3	38.3	-1.8	33.1	-	51.3	44.7	73.9	53.9	22.6	9.2	
Vert.	33000.0	67.3	-	43.8	3.8	75.1	-	39.8	-	68.2	-	28.4	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.

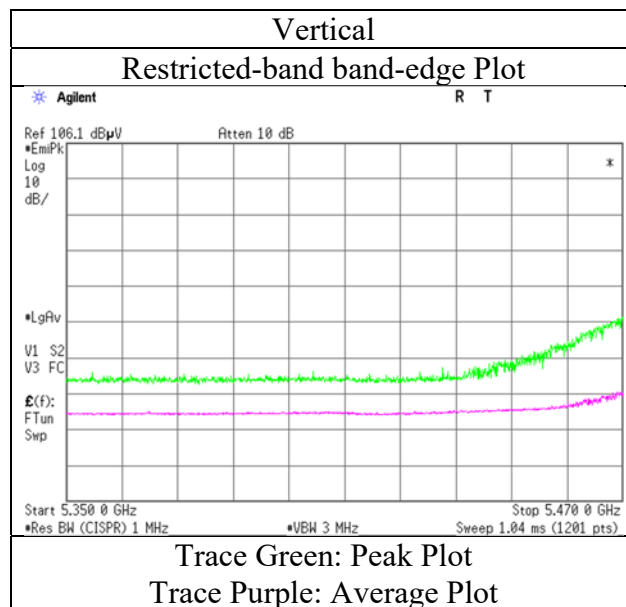
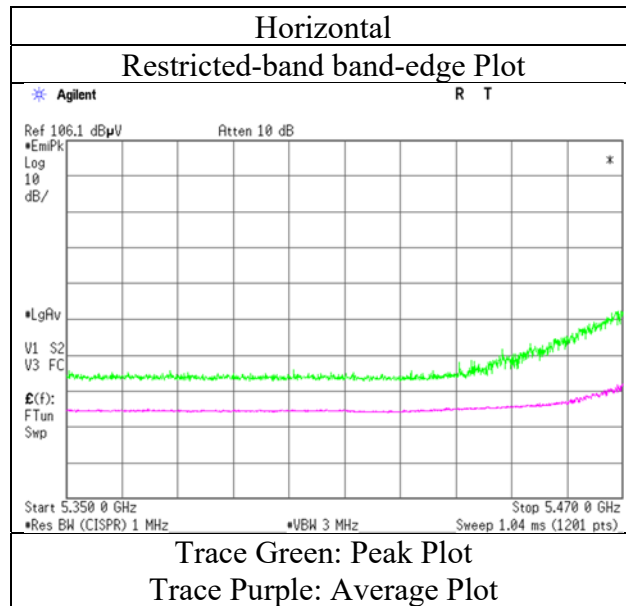
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
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.

UL Japan, Inc.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5580 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5460.0	41.2	30.3	32.1	6.1	31.3	-	48.2	37.2	68.2	53.9	20.1	16.7	*1)
Hori.	5470.0	40.5	-	32.1	6.1	31.3	-	47.5	-	68.2	-	20.7	-	*1)
Hori.	11160.0	51.9	42.8	39.6	-2.2	33.1	-	56.2	47.0	73.9	53.9	17.7	6.9	
Hori.	16740.0	44.0	-	39.8	-1.0	32.6	-	50.3	-	68.2	-	17.9	-	Floor noise
Hori.	22320.0	47.7	41.9	38.3	-1.7	33.2	-	51.2	45.4	73.9	53.9	22.8	8.6	
Hori.	33480.0	67.3	-	43.7	3.9	75.5	-	39.4	-	68.2	-	28.8	-	
Vert.	5460.0	41.2	30.7	32.1	6.1	31.3	-	48.1	37.6	68.2	53.9	20.1	16.3	*1)
Vert.	5470.0	41.0	-	32.1	6.1	31.3	-	48.0	-	68.2	-	20.2	-	*1)
Vert.	11160.0	51.1	42.0	39.6	-2.2	33.1	-	55.4	46.2	73.9	53.9	18.5	7.7	
Vert.	16740.0	41.5	-	39.8	-1.0	32.6	-	47.8	-	68.2	-	20.4	-	Floor noise
Vert.	22320.0	47.7	41.4	38.3	-1.7	33.2	-	51.2	44.9	73.9	53.9	22.8	9.1	
Vert.	33480.0	67.6	-	43.7	3.9	75.5	-	39.6	-	68.2	-	28.6	-	

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

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

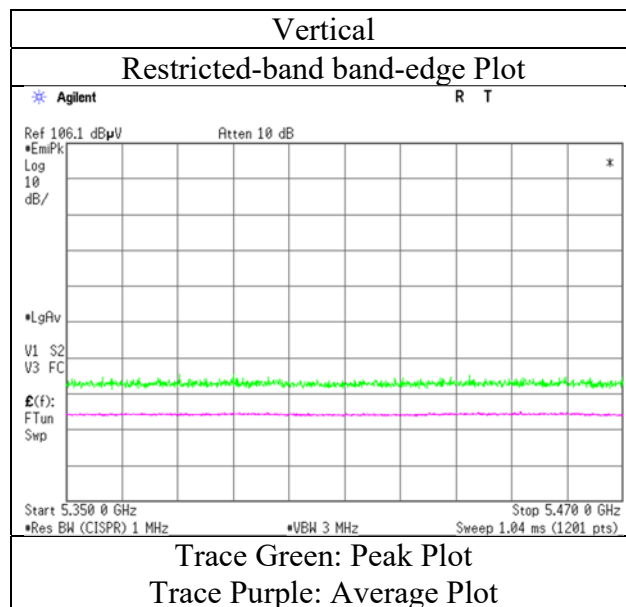
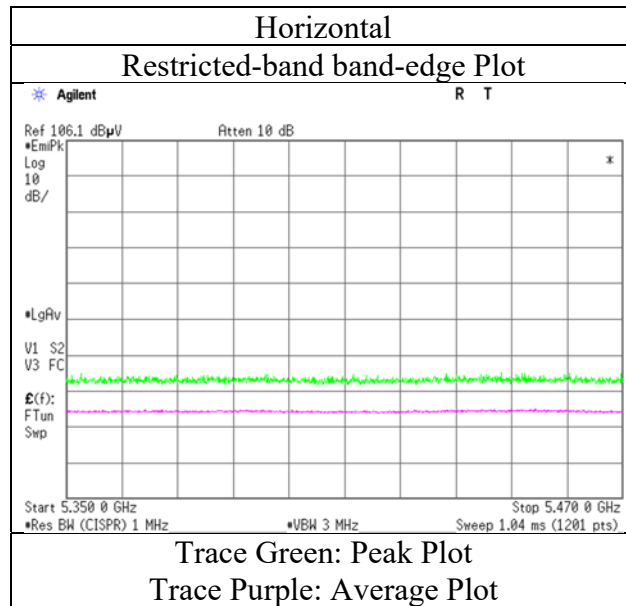
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11a 5580 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. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 26, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
Mode Tx 11a 5680 MHz

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3786.6	43.4	36.4	29.4	5.5	31.4	-	47.0	39.9	73.9	53.9	26.9	14.0	
Hori.	5725.0	47.4	-	32.5	6.2	31.3	-	54.8	-	68.2	-	13.4	-	*1)
Vert.	3786.6	44.1	37.8	29.4	5.5	31.4	-	47.7	41.3	73.9	53.9	26.3	12.6	
Vert.	5725.0	48.8	-	32.5	6.2	31.3	-	56.2	-	68.2	-	12.1	-	*1)

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

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

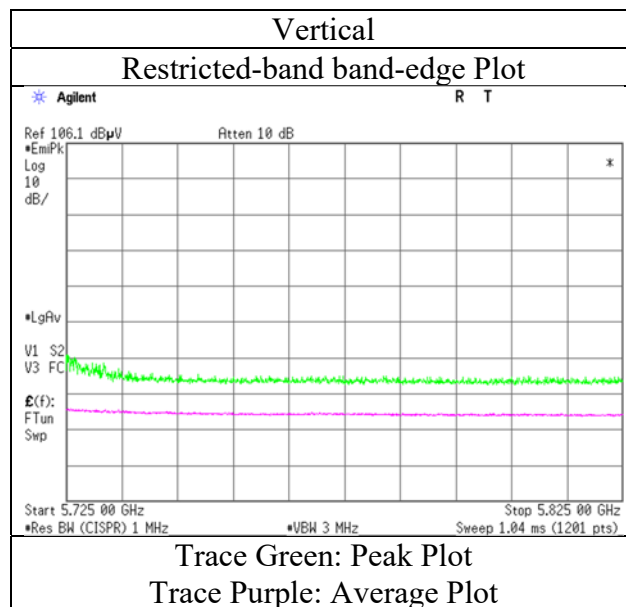
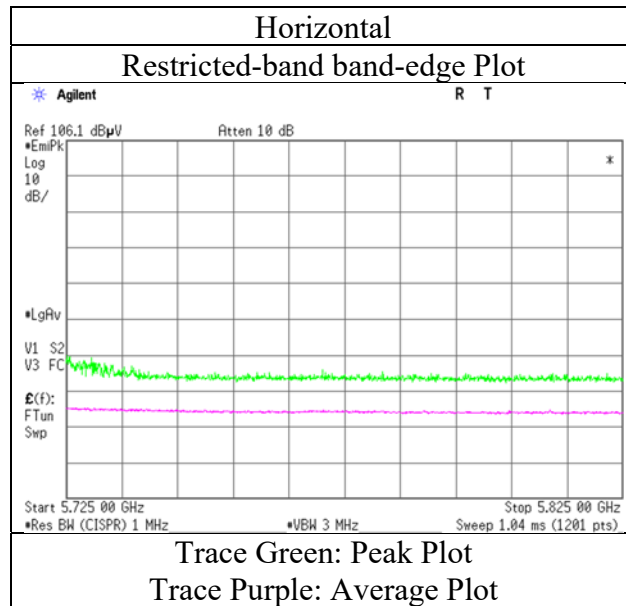
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
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. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 26, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
Mode Tx 11a 5680 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

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5700 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3800.0	42.7	35.5	29.5	5.5	31.4	-	46.3	39.1	73.9	53.9	27.6	14.8	Floor noise
Hori.	5725.0	58.5	-	32.5	6.2	31.3	-	65.9	-	68.2	-	2.3	-	
Hori.	11400.0	48.8	36.0	40.0	-2.2	33.1	-	53.5	40.7	73.9	53.9	20.4	13.2	
Hori.	17100.0	44.7	-	41.2	-0.8	32.6	-	52.5	-	68.2	-	15.7	-	
Hori.	22800.0	47.0	41.2	38.4	-1.5	33.3	-	50.6	44.8	73.9	53.9	23.3	9.1	
Hori.	34200.0	70.5	-	43.6	4.1	76.1	-	42.1	-	68.2	-	26.2	-	
Vert.	3800.0	43.2	35.8	29.5	5.5	31.4	-	46.8	39.4	73.9	53.9	27.1	14.5	Floor noise
Vert.	5725.0	58.6	-	32.5	6.2	31.3	-	66.0	-	68.2	-	2.3	-	
Vert.	11400.0	46.7	38.0	40.0	-2.2	33.1	-	51.4	42.6	73.9	53.9	22.5	11.3	
Vert.	17100.0	44.9	-	41.2	-0.8	32.6	-	52.7	-	68.2	-	15.5	-	
Vert.	22800.0	48.3	41.1	38.4	-1.5	33.3	-	51.9	44.7	73.9	53.9	22.0	9.2	
Vert.	34200.0	70.2	-	43.6	4.1	76.1	-	41.7	-	68.2	-	26.5	-	

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

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

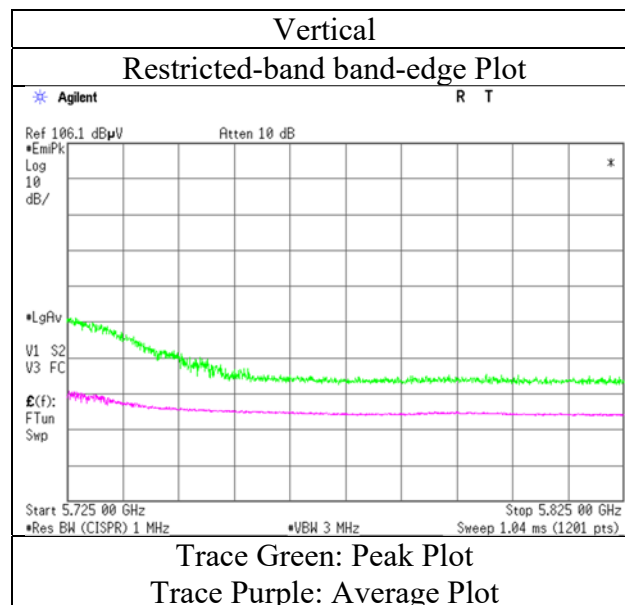
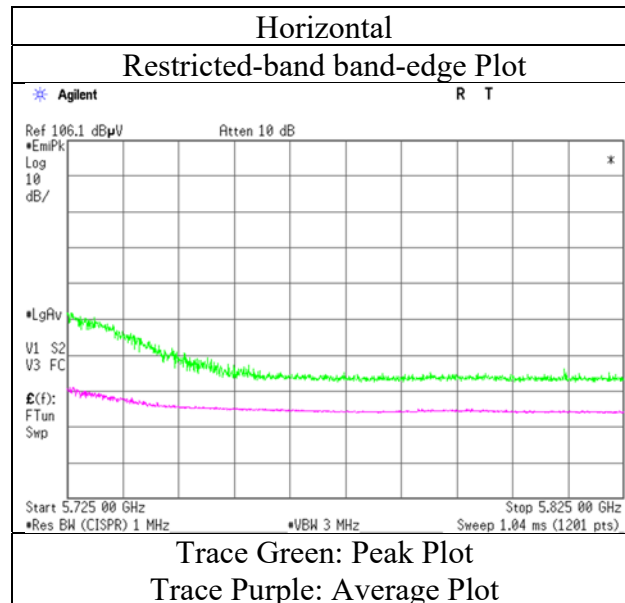
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11a 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.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5745 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3829.9	43.4	35.5	29.6	5.5	31.4	-	47.2	39.2	73.9	53.9	26.7	14.7	
Hori.	5650.0	40.9	-	32.3	6.2	31.3	-	48.1	-	68.2	-	20.1	-	
Hori.	5700.0	49.9	-	32.4	6.2	31.3	-	57.2	-	105.2	-	48.0	-	
Hori.	5720.0	59.5	-	32.4	6.2	31.3	-	66.9	-	110.8	-	43.9	-	
Hori.	5725.0	62.1	-	32.5	6.2	31.3	-	69.5	-	122.2	-	52.7	-	*1)
Hori.	11490.0	47.5	38.2	39.9	-2.3	33.1	-	52.0	42.8	73.9	53.9	21.9	11.1	
Hori.	17235.0	45.1	-	41.4	-0.8	32.6	-	53.1	-	68.2	-	15.1	-	Floor noise
Hori.	22980.0	48.0	41.6	38.5	-1.5	33.3	-	51.7	45.3	73.9	53.9	22.2	8.6	
Hori.	34470.0	70.3	-	43.5	4.1	76.1	-	41.9	-	68.2	-	26.3	-	
Vert.	3829.9	43.2	35.6	29.6	5.5	31.4	-	47.0	39.3	73.9	53.9	26.9	14.6	
Vert.	5650.0	41.5	-	32.3	6.2	31.3	-	48.7	-	68.2	-	19.5	-	
Vert.	5700.0	51.1	-	32.4	6.2	31.3	-	58.4	-	105.2	-	46.8	-	
Vert.	5720.0	60.1	-	32.4	6.2	31.3	-	67.5	-	110.8	-	43.3	-	
Vert.	5725.0	62.9	-	32.5	6.2	31.3	-	70.3	-	122.2	-	51.9	-	*1)
Vert.	11490.0	46.3	37.4	39.9	-2.3	33.1	-	50.8	41.9	73.9	53.9	23.1	12.0	
Vert.	17235.0	42.1	-	41.4	-0.8	32.6	-	50.1	-	68.2	-	18.2	-	Floor noise
Vert.	22980.0	47.0	40.2	38.5	-1.5	33.3	-	50.7	43.9	73.9	53.9	23.2	10.0	
Vert.	34470.0	70.1	-	43.5	4.1	76.1	-	41.6	-	68.2	-	26.6	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

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Ise EMC Lab.

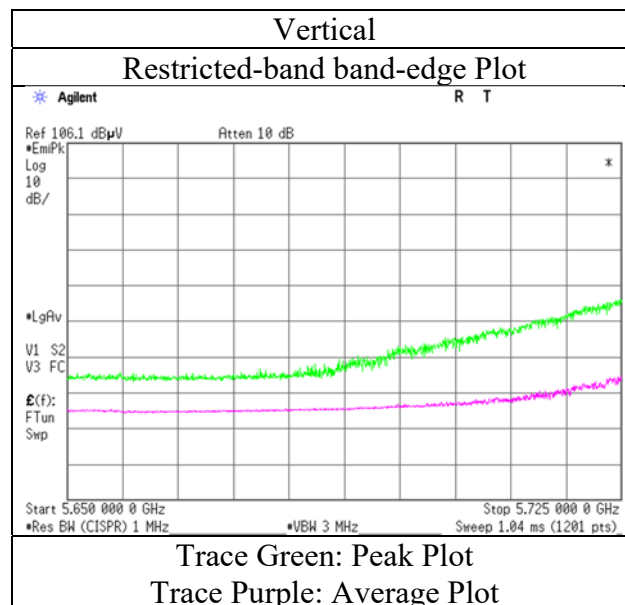
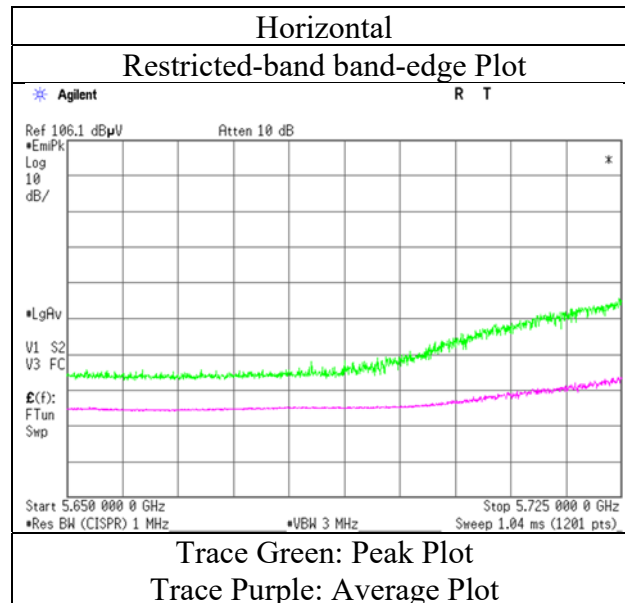
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
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.

UL Japan, Inc.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5785 MHz			

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP) Reading (PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP) Result (PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP) Limit (PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP) Margin (PK) [dB]	Margin (AV) [dB]	Remark
Hori.	3856.6	43.4	36.1	29.7	5.6	31.4	-	47.3	40.0	73.9	53.9	26.6	13.9	Floor noise
Hori.	11570.0	46.2	37.3	39.7	-2.3	33.0	-	50.6	41.7	73.9	53.9	23.3	12.2	
Hori.	17355.0	43.9	-	42.4	-0.7	32.6	-	53.0	-	68.2	-	15.2	-	
Hori.	23140.0	48.0	41.8	38.6	-1.5	33.3	-	51.8	45.6	73.9	53.9	22.1	8.3	
Hori.	34710.0	70.6	-	43.5	4.2	76.2	-	42.1	-	68.2	-	26.1	-	
Vert.	3856.6	43.1	35.7	29.7	5.6	31.4	-	47.0	39.7	73.9	53.9	26.9	14.2	Floor noise
Vert.	11570.0	44.8	36.4	39.7	-2.3	33.0	-	49.3	40.9	73.9	53.9	24.6	13.1	
Vert.	17355.0	41.2	-	42.4	-0.7	32.6	-	50.3	-	68.2	-	17.9	-	
Vert.	23140.0	47.4	39.8	38.6	-1.5	33.3	-	51.2	43.6	73.9	53.9	22.7	10.3	
Vert.	34710.0	70.6	-	43.5	4.2	76.2	-	42.1	-	68.2	-	26.1	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 10 GHz - 40 GHz $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 30, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	20 deg. C / 49 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Takeshi Hiyaji	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5825 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3883.4	44.7	37.0	29.8	5.6	31.4	-	48.8	41.0	73.9	53.9	25.1	12.9	
Hori.	5850.0	63.1	-	32.7	6.3	31.4	-	70.7	-	122.2	-	51.5	-	
Hori.	5855.0	57.0	-	32.7	6.3	31.4	-	64.6	-	110.8	-	46.2	-	
Hori.	5875.0	48.5	-	32.8	6.3	31.4	-	56.2	-	105.2	-	49.0	-	
Hori.	5925.0	41.2	-	32.9	6.3	31.4	-	49.0	-	68.2	-	19.2	-	
Hori.	11650.0	47.9	38.2	39.3	-2.3	33.0	-	51.9	42.2	73.9	53.9	22.0	11.7	
Hori.	17475.0	44.0	-	43.4	-0.7	32.6	-	54.1	-	68.2	-	14.1	-	Floor noise
Hori.	23300.0	48.3	42.0	38.7	-1.4	33.4	-	52.2	45.9	73.9	53.9	21.7	8.0	
Hori.	34950.0	70.7	-	43.5	4.2	76.2	-	42.2	-	68.2	-	26.0	-	
Vert.	3883.4	44.0	36.9	29.8	5.6	31.4	-	48.1	40.9	73.9	53.9	25.8	13.0	
Vert.	5850.0	59.7	-	32.7	6.3	31.4	-	67.3	-	122.2	-	54.9	-	
Vert.	5855.0	57.8	-	32.7	6.3	31.4	-	65.4	-	110.8	-	45.4	-	
Vert.	5875.0	48.5	-	32.8	6.3	31.4	-	56.1	-	105.2	-	49.1	-	
Vert.	5925.0	41.6	-	32.9	6.3	31.4	-	49.4	-	68.2	-	18.8	-	
Vert.	11650.0	46.0	37.9	39.3	-2.3	33.0	-	50.0	41.9	73.9	53.9	23.9	12.0	
Vert.	17475.0	42.2	-	43.4	-0.7	32.6	-	52.3	-	68.2	-	16.0	-	Floor noise
Vert.	23300.0	47.1	40.6	38.7	-1.4	33.4	-	51.0	44.5	73.9	53.9	22.9	9.4	
Vert.	34950.0	68.6	-	43.5	4.2	76.2	-	40.1	-	68.2	-	28.1	-	

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

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

*QP detector was used up to 1GHz.

Distance factor:	1 GHz - 10 GHz	20log (4 m / 3.0 m) = 2.5 dB
	10 GHz - 40 GHz	20log (1.0 m / 3.0 m) = -9.5 dB

UL Japan, Inc.

Ise EMC Lab.

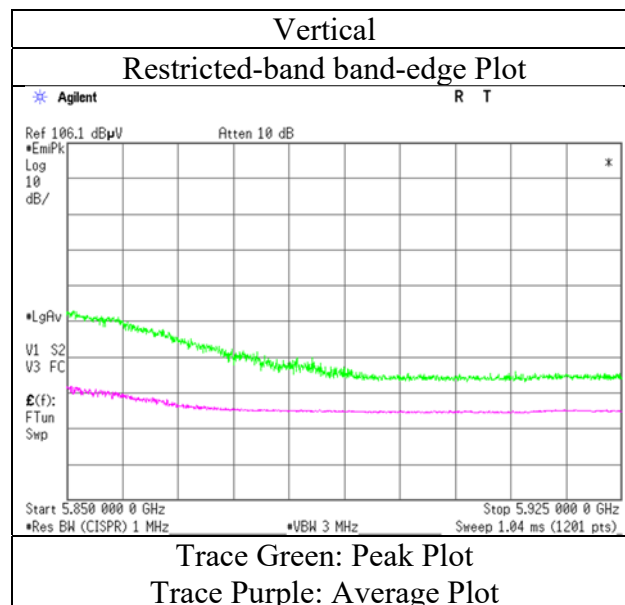
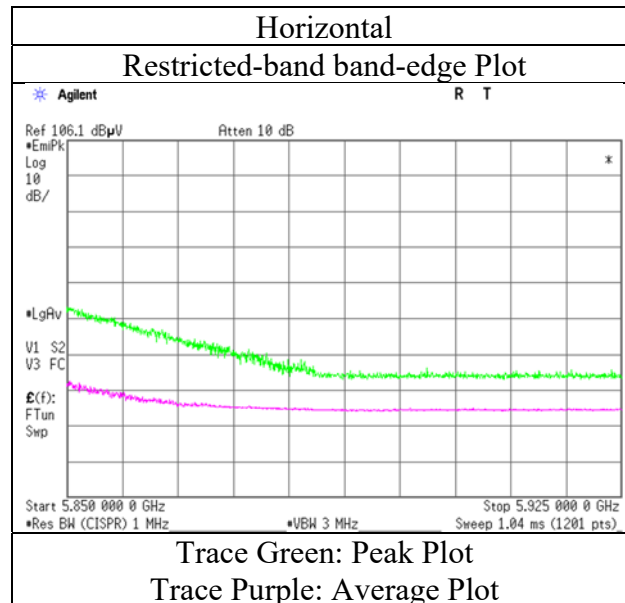
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 26, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
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.

UL Japan, Inc.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5180 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	58.7	41.0	32.4	6.0	31.2	-	65.9	48.2	73.9	53.9	8.0	5.7	*1)
Hori.	10360.0	48.4	41.6	39.8	-2.5	32.9	-	52.8	45.9	73.9	53.9	21.1	8.0	
Hori.	15540.0	43.9	32.3	38.2	-1.2	32.5	-	48.4	36.8	73.9	53.9	25.5	17.1	Floor noise
Hori.	20720.0	48.0	41.4	38.0	-2.0	33.0	-	51.1	44.5	73.9	53.9	22.9	9.5	
Hori.	31080.0	68.8	-	43.5	3.3	75.9	-	39.6	-	68.2	-	28.6	-	
Vert.	5150.0	58.8	41.9	32.4	6.0	31.2	-	66.1	49.2	73.9	53.9	7.8	4.7	*1)
Vert.	10360.0	48.5	41.7	39.8	-2.5	32.9	-	52.9	46.1	73.9	53.9	21.0	7.8	
Vert.	15540.0	43.9	32.3	38.2	-1.2	32.5	-	48.4	36.8	73.9	53.9	25.5	17.1	Floor noise
Vert.	20720.0	48.0	41.0	38.0	-2.0	33.0	-	51.1	44.1	73.9	53.9	22.9	9.9	
Vert.	31080.0	69.1	-	43.5	3.3	75.9	-	40.0	-	68.2	-	28.2	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.

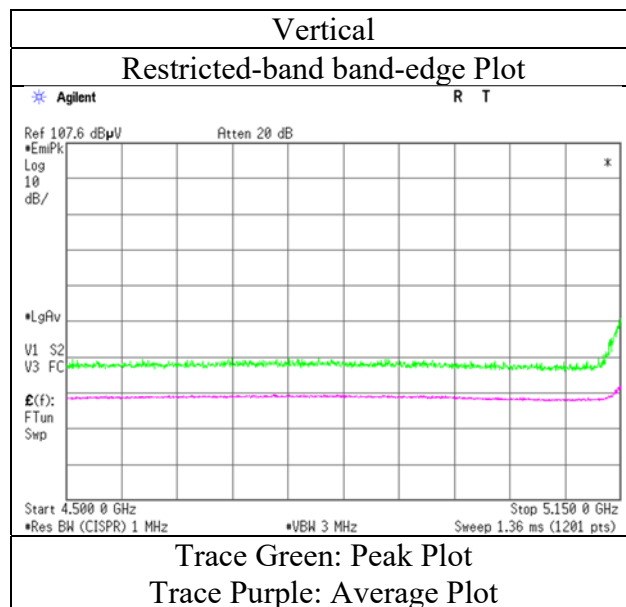
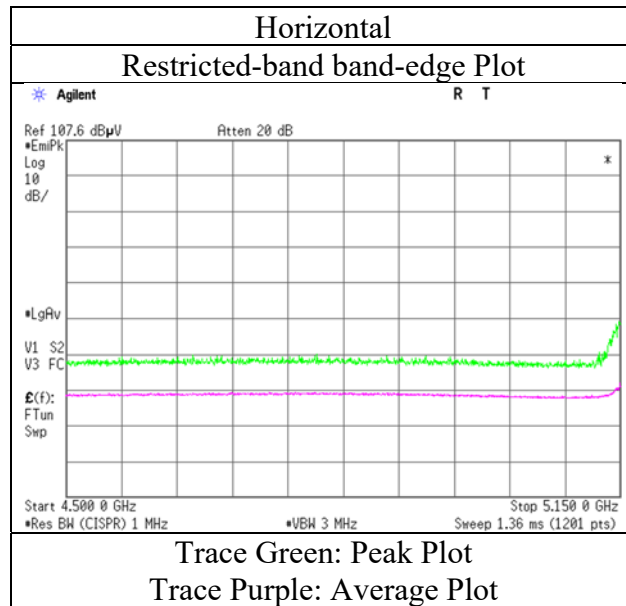
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 25, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
Mode Tx 11ac-20 5200 MHz

Polarity	Frequency	Reading (QP)	Reading (AV)	Ant.	Loss	Gain	Duty	Result (QP)	Result (AV)	Limit (QP)	Limit (AV)	Margin (QP)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	52.9	36.4	32.4	6.0	31.2	-	60.1	43.6	73.9	53.9	13.8	10.3	*1)
Vert.	5150.0	52.4	36.2	32.4	6.0	31.2	-	59.7	43.5	73.9	53.9	14.2	10.4	*1)

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

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

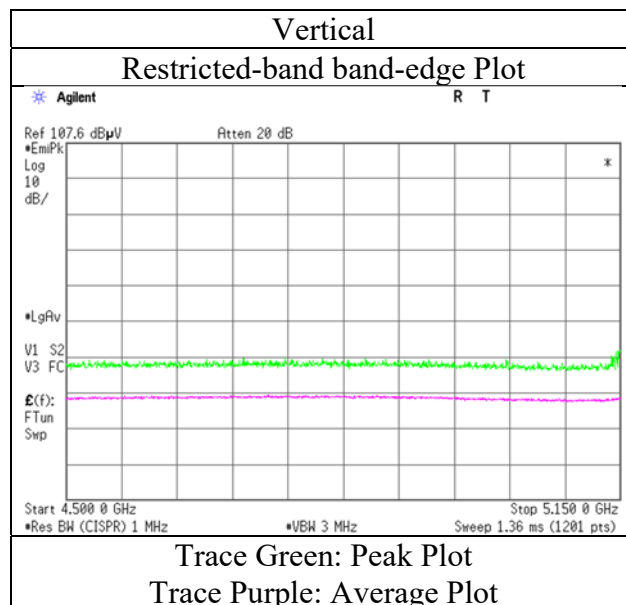
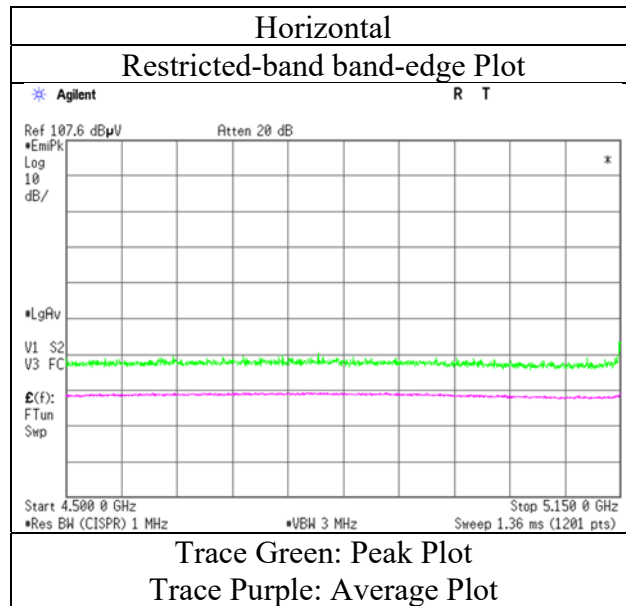
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5200 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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5260 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	10520.0	51.8	43.8	39.9	-2.5	33.0	-	56.2	48.2	73.9	53.9	17.7	5.7	Floor noise
Hori.	15780.0	43.2	32.4	37.5	-1.2	32.5	-	47.0	36.2	73.9	53.9	26.9	17.7	
Hori.	21040.0	47.9	39.4	38.1	-1.9	33.1	-	51.0	42.5	73.9	53.9	22.9	11.4	
Hori.	31560.0	66.4	55.4	43.7	3.4	75.0	-	38.4	27.4	73.9	53.9	35.5	26.5	
Vert.	10520.0	50.2	43.0	39.9	-2.5	33.0	-	54.6	47.4	73.9	53.9	19.3	6.5	Floor noise
Vert.	15780.0	43.2	32.4	37.5	-1.2	32.5	-	47.0	36.2	73.9	53.9	26.9	17.7	
Vert.	21040.0	47.3	38.4	38.1	-1.9	33.1	-	50.4	41.5	73.9	53.9	23.5	12.4	
Vert.	31560.0	67.2	55.9	43.7	3.4	75.0	-	39.2	27.9	73.9	53.9	34.7	26.0	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 10 GHz - 40 GHz $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

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Radiated Spurious Emission

Report No.	13521383H				
Test place	Ise EMC Lab.				
Semi Anechoic Chamber	No.4	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020	November 3, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH	20 deg. C / 40 % RH
Engineer	Junki Nagatomi (1 GHz - 10 GHz)	Akihiko Maeda (10 GHz - 18 GHz)	Hiroyuki Furutaka (18 GHz - 26.5 GHz)	Junki Nagatomi (26.5 GHz - 40 GHz)	Junya Okuno (Below 1GHz)
Mode	Tx 11ac-20 5300 MHz				

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP) Reading (PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP) Result (PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP) Limit (PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP) Margin (PK) [dB]	Margin (AV) [dB]	Remark
Hori.	30.0	24.3	-	18.4	7.2	32.0	-	17.9	-	40.0	-	22.1	-	
Hori.	95.0	26.7	-	9.3	8.0	31.9	-	12.1	-	43.5	-	31.4	-	
Hori.	190.9	26.3	-	16.3	8.9	31.8	-	19.7	-	43.5	-	23.9	-	
Hori.	275.1	31.8	-	13.2	9.6	31.8	-	22.7	-	46.0	-	23.3	-	
Hori.	366.5	28.8	-	15.2	10.2	31.8	-	22.4	-	46.0	-	23.6	-	
Hori.	477.4	24.3	-	17.1	10.8	31.9	-	20.3	-	46.0	-	25.7	-	
Hori.	5350.0	50.4	35.5	31.8	6.1	31.2	-	57.0	42.2	73.9	53.9	16.9	11.7	*1)
Hori.	10600.0	52.2	44.5	39.9	-2.4	33.0	-	56.7	49.0	73.9	53.9	17.2	4.9	
Hori.	15900.0	43.0	32.2	37.4	-1.1	32.6	-	46.7	35.9	73.9	53.9	27.2	18.0	Floor noise
Hori.	21200.0	48.2	40.2	38.2	-1.9	33.1	-	51.4	43.4	73.9	53.9	22.5	10.5	
Hori.	31800.0	66.6	55.6	43.7	3.4	74.5	-	39.2	28.2	73.9	53.9	34.7	25.7	
Vert.	75.0	40.6	-	6.4	7.8	32.0	-	22.8	-	40.0	-	17.2	-	
Vert.	136.3	38.2	-	14.1	8.4	31.9	-	28.9	-	43.5	-	14.7	-	
Vert.	192.6	32.8	-	16.3	8.9	31.8	-	26.2	-	43.5	-	17.3	-	
Vert.	275.1	37.7	-	13.2	9.6	31.8	-	28.6	-	46.0	-	17.4	-	
Vert.	367.8	33.8	-	15.2	10.2	31.8	-	27.4	-	46.0	-	18.6	-	
Vert.	481.3	30.4	-	17.2	10.8	31.9	-	26.6	-	46.0	-	19.4	-	
Vert.	5350.0	50.9	35.5	31.8	6.1	31.2	-	57.6	42.2	73.9	53.9	16.3	11.7	*1)
Vert.	10600.0	50.3	43.2	39.9	-2.4	33.0	-	54.7	47.6	73.9	53.9	19.2	6.3	
Vert.	15900.0	43.0	32.2	37.4	-1.1	32.6	-	46.7	35.9	73.9	53.9	27.2	18.0	Floor noise
Vert.	21200.0	48.3	39.2	38.2	-1.9	33.1	-	51.5	42.4	73.9	53.9	22.4	11.5	
Vert.	31800.0	66.3	54.7	43.7	3.4	74.5	-	38.9	27.3	73.9	53.9	35.0	26.7	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

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Ise EMC Lab.

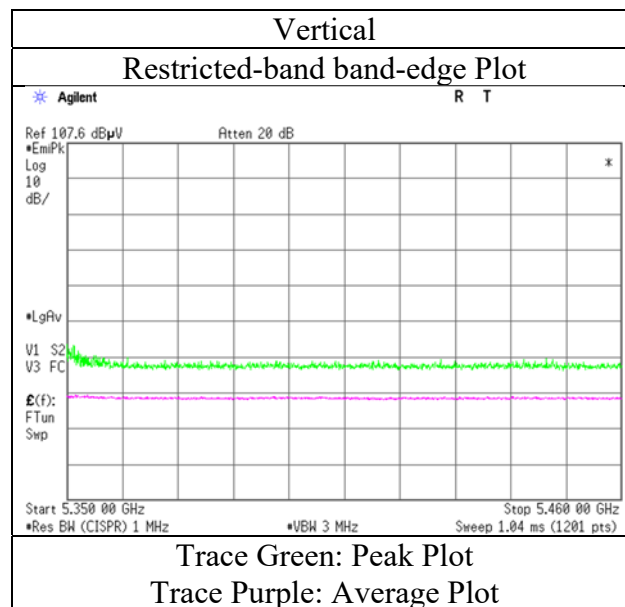
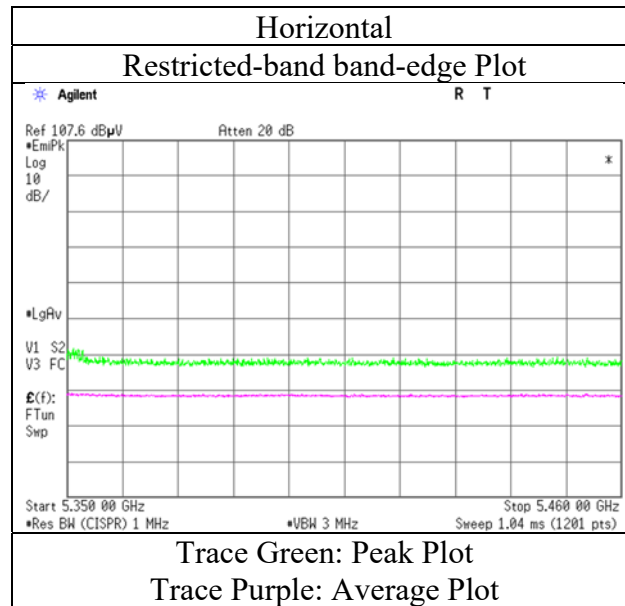
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5300 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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5320 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	57.6	40.9	31.8	6.1	31.2	-	64.2	47.5	73.9	53.9	9.7	6.4	*1)
Hori.	10640.0	50.8	44.0	39.7	-2.4	33.0	-	55.0	48.2	73.9	53.9	18.9	5.7	
Hori.	15960.0	44.1	32.3	37.8	-1.1	32.6	-	48.2	36.3	73.9	53.9	25.7	17.6	Floor noise
Hori.	21280.0	47.6	39.4	38.2	-1.9	33.1	-	50.8	42.6	73.9	53.9	23.1	11.3	
Hori.	31920.0	70.0	-	43.7	3.4	74.3	-	42.9	-	68.2	-	25.3	-	
Vert.	5350.0	58.0	42.3	31.8	6.1	31.2	-	64.6	49.0	73.9	53.9	9.3	4.9	*1)
Vert.	10640.0	48.6	42.4	39.7	-2.4	33.0	-	52.9	46.7	73.9	53.9	21.0	7.2	
Vert.	15960.0	44.1	32.3	37.8	-1.1	32.6	-	48.2	36.3	73.9	53.9	25.7	17.6	Floor noise
Vert.	21280.0	47.6	38.5	38.2	-1.9	33.1	-	50.8	41.7	73.9	53.9	23.1	12.2	
Vert.	31920.0	67.5	-	43.7	3.4	74.3	-	40.4	-	68.2	-	27.8	-	

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

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

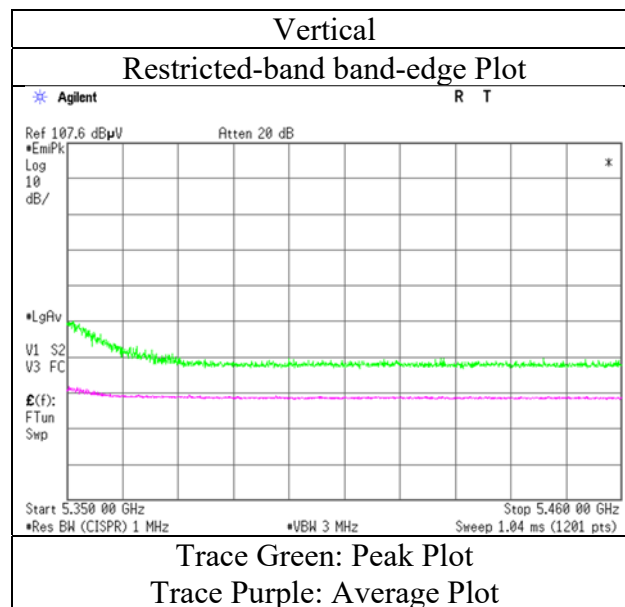
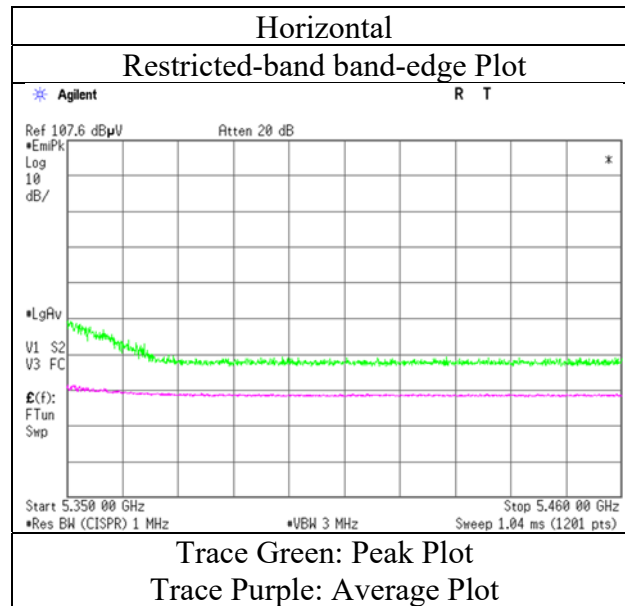
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5500 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3666.7	44.4	38.3	29.2	5.5	31.4	-	47.6	41.5	73.9	53.9	26.3	12.5	
Hori.	5460.0	53.0	36.9	32.1	6.1	31.3	-	60.0	43.9	68.2	53.9	8.3	10.1	*1)
Hori.	5470.0	58.4	-	32.1	6.1	31.3	-	65.4	-	68.2	-	2.8	-	*1)
Hori.	11000.0	51.3	43.6	40.0	-2.2	33.2	-	55.9	48.2	73.9	53.9	18.0	5.7	
Hori.	16500.0	43.7	32.3	40.4	-1.0	32.6	-	50.6	39.1	73.9	53.9	23.3	14.8	Floor noise
Hori.	22000.0	48.6	40.4	38.3	-1.8	33.1	-	52.0	43.8	73.9	53.9	21.9	10.1	
Hori.	33000.0	68.5	-	43.8	3.8	75.1	-	41.0	-	68.2	-	27.2	-	
Vert.	3666.7	46.0	39.9	29.2	5.5	31.4	-	49.2	43.1	73.9	53.9	24.7	10.8	
Vert.	5460.0	53.6	37.3	32.1	6.1	31.3	-	60.5	44.3	68.2	53.9	7.7	9.6	*1)
Vert.	5470.0	58.0	-	32.1	6.1	31.3	-	65.0	-	68.2	-	3.2	-	*1)
Vert.	11000.0	49.3	41.7	40.0	-2.2	33.2	-	53.9	46.3	73.9	53.9	20.0	7.6	
Vert.	16500.0	43.7	32.3	40.4	-1.0	32.6	-	50.6	39.1	73.9	53.9	23.3	14.8	Floor noise
Vert.	22000.0	48.0	39.9	38.3	-1.8	33.1	-	51.4	43.3	73.9	53.9	22.5	10.6	
Vert.	33000.0	67.7	-	43.8	3.8	75.1	-	40.2	-	68.2	-	28.0	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

UL Japan, Inc.

Ise EMC Lab.

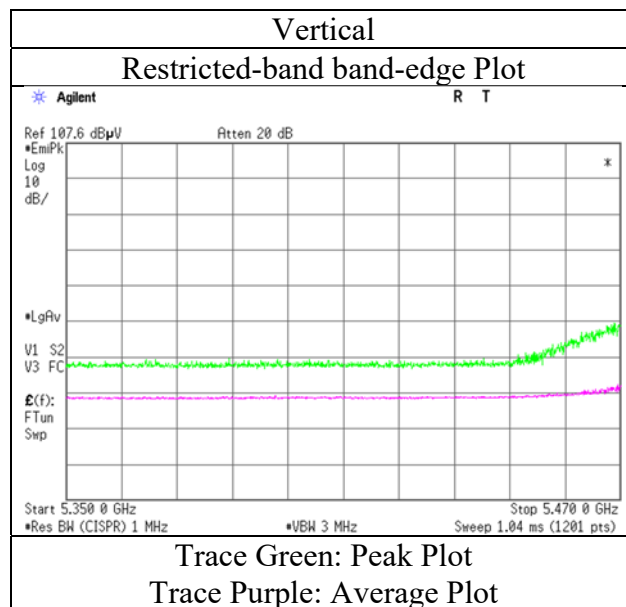
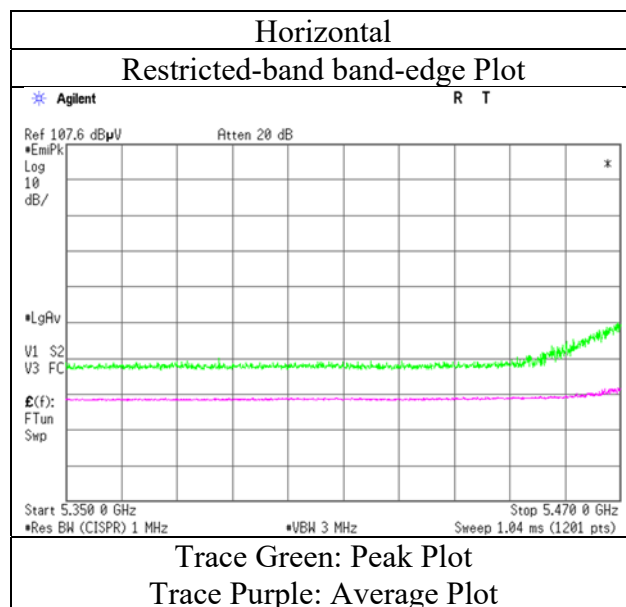
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5580 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3719.9	43.6	36.8	29.3	5.5	31.4	-	47.0	40.2	73.9	53.9	26.9	13.7	Floor noise
Hori.	11160.0	53.6	44.5	39.6	-2.2	33.1	-	57.9	48.8	73.9	53.9	16.0	5.1	
Hori.	16740.0	43.3	32.1	39.8	-1.0	32.6	-	49.6	38.3	73.9	53.9	24.3	15.6	
Hori.	22320.0	47.8	39.2	38.3	-1.7	33.2	-	51.3	42.7	73.9	53.9	22.7	11.3	
Hori.	33480.0	69.6	-	43.7	3.9	75.5	-	41.6	-	68.2	-	26.6	-	
Vert.	3719.9	45.8	40.3	29.3	5.5	31.4	-	49.1	43.6	73.9	53.9	24.8	10.3	Floor noise
Vert.	11160.0	49.9	41.3	39.6	-2.2	33.1	-	54.2	45.6	73.9	53.9	19.7	8.4	
Vert.	16740.0	43.3	32.1	39.8	-1.0	32.6	-	49.6	38.3	73.9	53.9	24.3	15.6	
Vert.	22320.0	48.1	39.6	38.3	-1.7	33.2	-	51.6	43.1	73.9	53.9	22.4	10.9	
Vert.	33480.0	68.2	-	43.7	3.9	75.5	-	40.2	-	68.2	-	28.0	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 10 GHz - 40 GHz $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

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Ise EMC Lab.

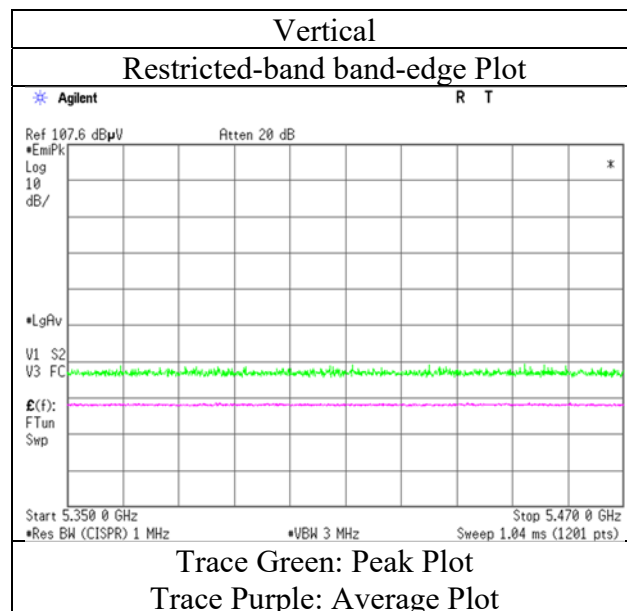
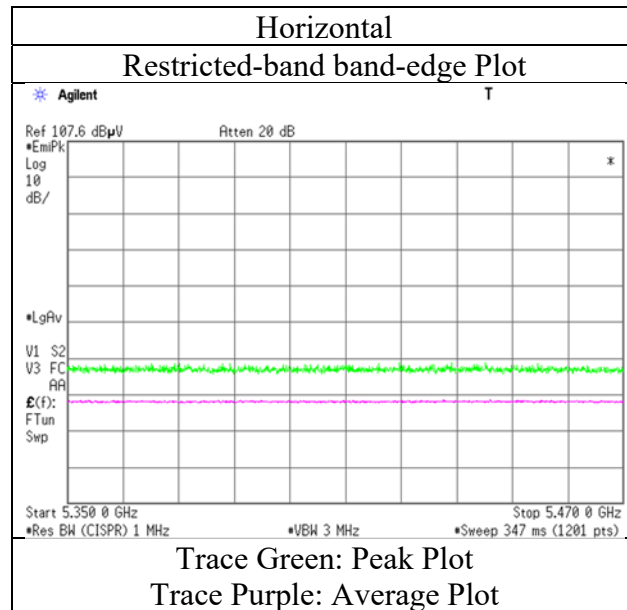
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

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Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 25, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
Mode Tx 11ac-20 5580 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

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 25, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Junki Nagatomi
(1 GHz - 10 GHz)
Mode Tx 11ac-20 5680 MHz

Polarity	Frequency	Reading (QP)	Reading (PK)	Reading (AV)	Ant.	Loss	Gain	Duty	Result (QP)	Result (PK)	Result (AV)	Limit (QP)	Limit (PK)	Limit (AV)	Margin (QP)	Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	
Hori.	3786.6	43.6	36.9	29.4	5.5	31.4	-	-	47.1	40.4	73.9	53.9	26.8	13.5				
Hori.	5725.0	48.1	-	32.5	6.2	31.3	-	-	55.5	-	68.2	-	12.7	-	*1)			
Vert.	3786.6	44.0	37.6	29.4	5.5	31.4	-	-	47.5	41.1	73.9	53.9	26.4	12.8				
Vert.	5725.0	47.8	-	32.5	6.2	31.3	-	-	55.2	-	68.2	-	13.0	-	*1)			

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

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

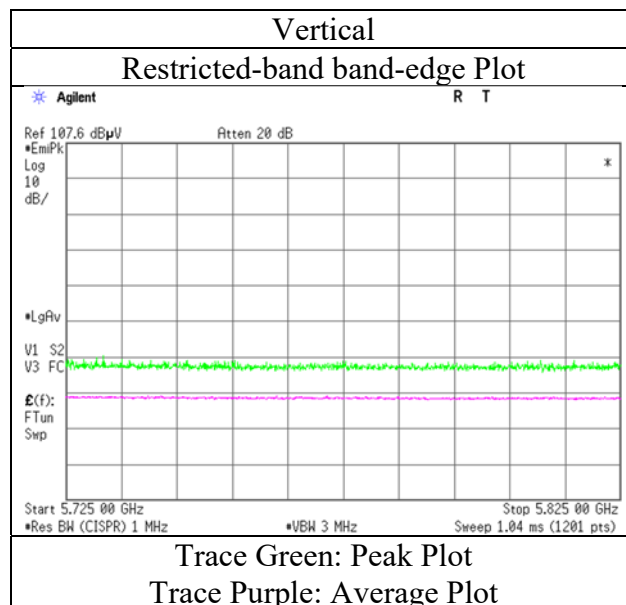
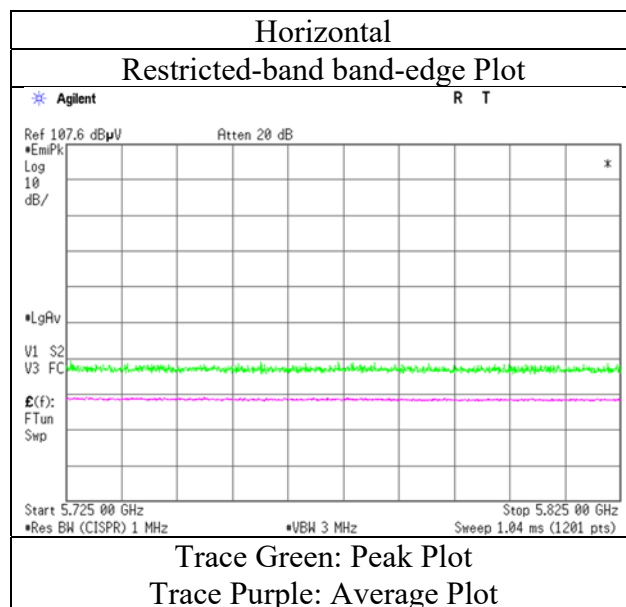
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5680 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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 25, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 45 % RH
Engineer	Junki Nagatomi	Akihiko Maeda	Hiroyuki Furutaka	Junki Nagatomi
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5700 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3800.0	43.5	36.1	29.5	5.5	31.4	-	47.1	39.7	73.9	53.9	26.8	14.2	Floor noise
Hori.	5725.0	60.1	-	32.5	6.2	31.3	-	67.5	-	68.2	53.9	0.7	-	
Hori.	11400.0	48.5	40.3	40.0	-2.2	33.1	-	53.1	44.9	73.9	53.9	20.8	9.0	
Hori.	17100.0	44.0	33.0	41.2	-0.8	32.6	-	51.8	40.7	73.9	53.9	22.1	13.2	
Hori.	22800.0	47.1	39.9	38.4	-1.5	33.3	-	50.7	43.5	73.9	53.9	23.2	10.4	
Hori.	34200.0	71.0	-	43.6	4.1	76.1	-	42.6	-	68.2	-	25.6	-	
Vert.	3800.0	43.6	36.5	29.5	5.5	31.4	-	47.2	40.1	73.9	53.9	26.7	13.8	Floor noise
Vert.	5725.0	60.4	-	32.5	6.2	31.3	-	67.7	-	68.2	53.9	0.5	-	
Vert.	11400.0	46.3	36.7	40.0	-2.2	33.1	-	51.0	41.4	73.9	53.9	22.9	12.5	
Vert.	17100.0	44.0	33.0	41.2	-0.8	32.6	-	51.8	40.7	73.9	53.9	22.1	13.2	
Vert.	22800.0	46.4	38.2	38.4	-1.5	33.3	-	50.0	41.8	73.9	53.9	23.9	12.1	
Vert.	34200.0	70.8	-	43.6	4.1	76.1	-	42.4	-	68.2	-	25.8	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

UL Japan, Inc.

Ise EMC Lab.

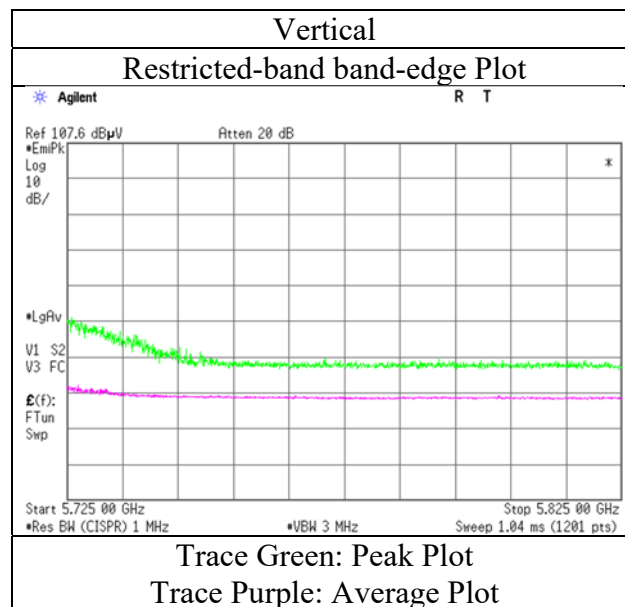
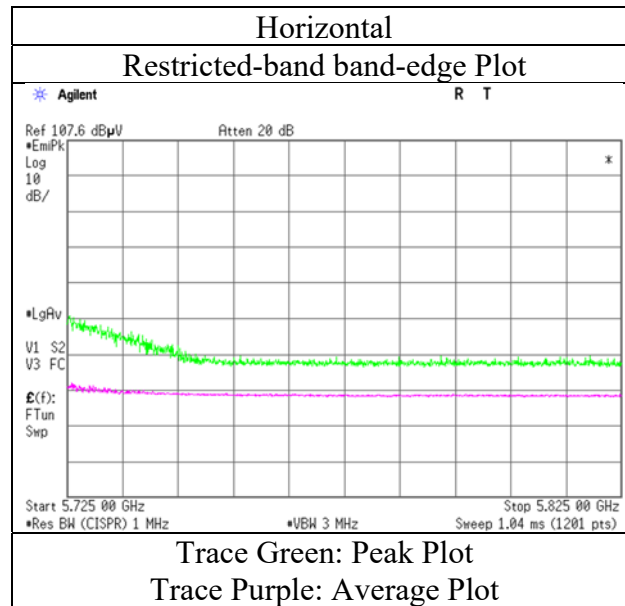
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 25, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Junki Nagatomi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.

Ise EMC Lab.

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Yuta Moriya	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5745 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3829.9	43.2	35.5	29.6	6.4	31.4	-	47.9	40.1	73.9	53.9	26.1	13.8	
Hori.	5650.0	41.7	-	32.3	7.3	31.3	-	49.9	-	68.2	-	18.3	-	
Hori.	5700.0	51.0	-	32.4	7.3	31.3	-	59.3	-	105.2	-	45.9	-	
Hori.	5720.0	60.0	-	32.4	7.3	31.3	-	68.4	-	110.8	-	42.4	-	
Hori.	5725.0	61.9	-	32.5	7.3	31.3	-	70.3	-	122.2	-	51.9	-	*1)
Hori.	11490.0	46.8	38.8	39.9	-2.3	33.1	-	51.4	43.3	73.9	53.9	22.5	10.6	
Hori.	17235.0	44.5	33.3	41.4	-0.8	32.6	-	52.4	41.2	73.9	53.9	21.5	12.7	Floor noise
Hori.	22980.0	48.4	40.6	38.5	-1.5	33.3	-	52.1	44.3	73.9	53.9	21.8	9.6	
Hori.	34470.0	69.1	-	43.5	4.1	76.1	-	40.6	-	68.2	-	27.6	-	
Vert.	3829.9	43.6	36.7	29.6	6.4	31.4	-	48.2	41.3	73.9	53.9	25.7	12.6	
Vert.	5650.0	40.8	-	32.3	7.3	31.3	-	49.0	-	68.2	-	19.2	-	
Vert.	5700.0	51.0	-	32.4	7.3	31.3	-	59.3	-	105.2	-	45.9	-	
Vert.	5720.0	59.8	-	32.4	7.3	31.3	-	68.2	-	110.8	-	42.6	-	
Vert.	5725.0	61.9	-	32.5	7.3	31.3	-	70.4	-	122.2	-	51.8	-	*1)
Vert.	11490.0	45.3	35.3	39.9	-2.3	33.1	-	49.9	39.9	73.9	53.9	24.0	14.0	
Vert.	17235.0	44.5	33.3	41.4	-0.8	32.6	-	52.4	41.2	73.9	53.9	21.5	12.7	Floor noise
Vert.	22980.0	47.3	37.8	38.5	-1.5	33.3	-	51.0	41.5	73.9	53.9	22.9	12.4	
Vert.	34470.0	68.3	-	43.5	4.1	76.1	-	39.9	-	68.2	-	28.3	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

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Ise EMC Lab.

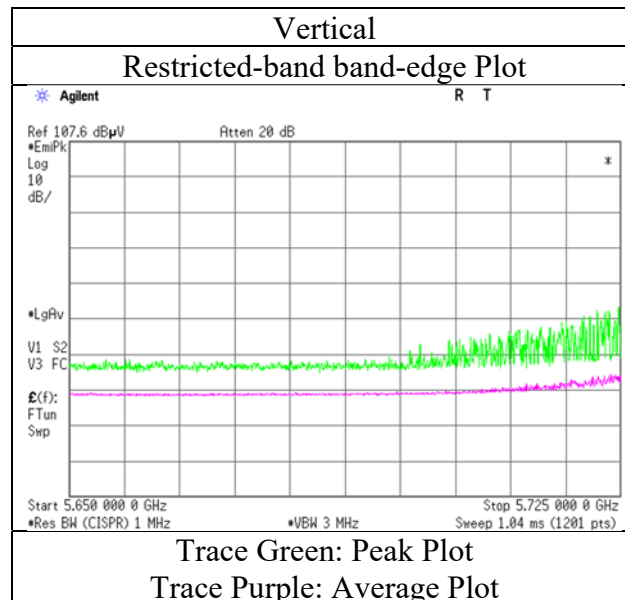
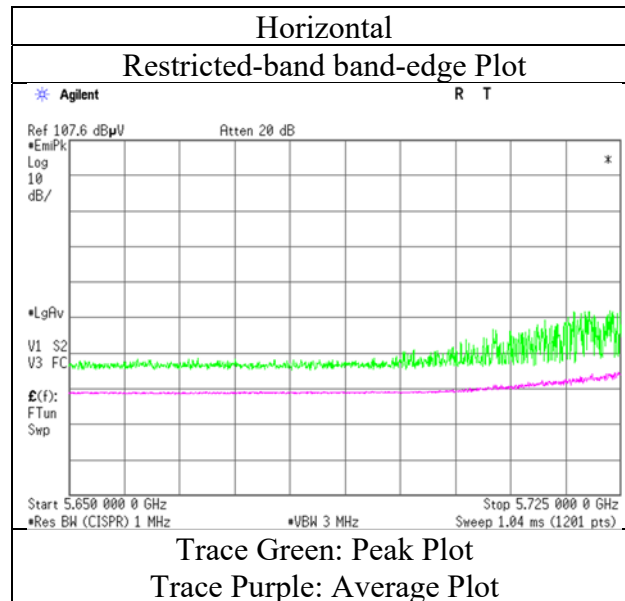
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	20 deg. C / 44 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Yuta Moriya	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5785 MHz			

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP) Reading (PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP) Result (PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP) Limit (PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP) Margin (PK) [dB]	Margin (AV) [dB]	Remark
Hori.	11570.0	46.9	38.3	39.7	-2.3	33.0	-	51.4	42.7	73.9	53.9	22.5	11.2	Floor noise
Hori.	17355.0	43.6	32.6	42.4	-0.7	32.6	-	52.7	41.7	73.9	53.9	21.2	12.2	
Hori.	23140.0	48.7	40.5	38.6	-1.5	33.3	-	52.5	44.3	73.9	53.9	21.4	9.6	
Hori.	34710.0	70.2	-	43.5	4.2	76.2	-	41.7	-	68.2	-	26.5	-	
Vert.	11570.0	46.1	37.5	39.7	-2.3	33.0	-	50.5	41.9	73.9	53.9	23.4	12.0	Floor noise
Vert.	17355.0	43.6	32.6	42.4	-0.7	32.6	-	52.7	41.7	73.9	53.9	21.2	12.2	
Vert.	23140.0	47.7	37.1	38.6	-1.5	33.3	-	51.5	40.9	73.9	53.9	22.4	13.0	
Vert.	34710.0	68.8	-	43.5	4.2	76.2	-	40.3	-	68.2	-	27.9	-	

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

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

*QP detector was used up to 1GHz.

Distance factor:	1 GHz - 10 GHz	20log (4 m / 3.0 m) = 2.5 dB
	10 GHz - 40 GHz	20log (1.0 m / 3.0 m) = -9.5 dB

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 26, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	20 deg. C / 44 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Yuta Moriya	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-20 5825 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3883.3	42.6	35.3	29.8	6.4	31.4	-	47.5	40.2	73.9	53.9	26.4	13.7	
Hori.	5850.0	59.5	-	32.7	7.4	31.4	-	68.2	-	122.2	-	54.0	-	
Hori.	5855.0	55.9	-	32.7	7.4	31.4	-	64.6	-	110.8	-	46.2	-	
Hori.	5875.0	46.9	-	32.8	7.4	31.4	-	55.6	-	105.2	-	49.6	-	
Hori.	5925.0	41.1	-	32.9	7.4	31.4	-	50.0	-	68.2	-	18.2	-	
Hori.	11650.0	48.6	39.2	39.3	-2.3	33.0	-	52.7	43.3	73.9	53.9	21.2	10.6	
Hori.	17475.0	43.1	32.4	43.4	-0.7	32.6	-	53.2	42.5	73.9	53.9	20.7	11.4	Floor noise
Hori.	23300.0	49.0	41.2	38.7	-1.4	33.4	-	52.9	45.1	73.9	53.9	21.0	8.8	
Hori.	34950.0	68.5	-	43.5	4.2	76.2	-	40.0	-	68.2	-	28.2	-	
Vert.	3883.3	42.6	34.8	29.8	6.4	31.4	-	47.5	39.6	73.9	53.9	26.4	14.3	
Vert.	5850.0	58.4	-	32.7	7.4	31.4	-	67.1	-	122.2	-	55.1	-	
Vert.	5855.0	55.6	-	32.7	7.4	31.4	-	64.3	-	110.8	-	46.5	-	
Vert.	5875.0	47.6	-	32.8	7.4	31.4	-	56.4	-	105.2	-	48.8	-	
Vert.	5925.0	41.4	-	32.9	7.4	31.4	-	50.3	-	68.2	-	17.9	-	
Vert.	11650.0	47.7	38.9	39.3	-2.3	33.0	-	51.7	42.9	73.9	53.9	22.2	11.0	
Vert.	17475.0	43.1	32.4	43.4	-0.7	32.6	-	53.2	42.5	73.9	53.9	20.7	11.4	Floor noise
Vert.	23300.0	48.0	38.0	38.7	-1.4	33.4	-	51.9	41.9	73.9	53.9	22.0	12.0	
Vert.	34950.0	68.5	-	43.5	4.2	76.2	-	40.0	-	68.2	-	28.2	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 10 GHz - 40 GHz $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

UL Japan, Inc.

Ise EMC Lab.

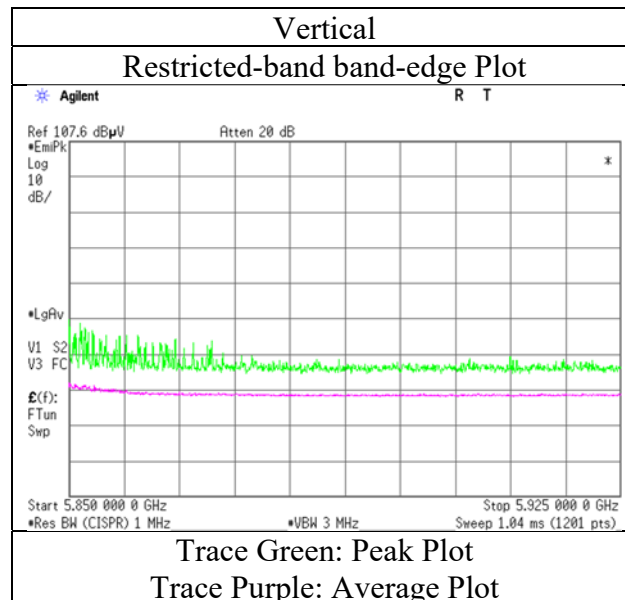
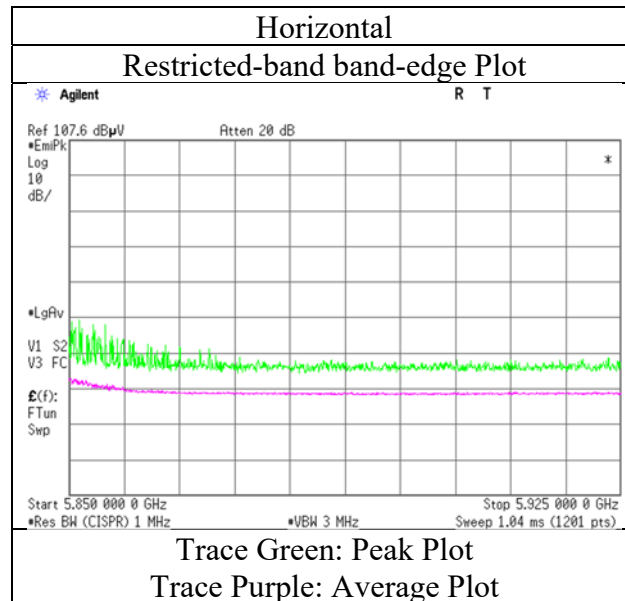
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 26, 2020
Temperature / Humidity	20 deg. C / 44 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.

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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5190 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	61.1	42.9	32.4	6.0	31.2	-	68.3	50.1	73.9	53.9	5.6	3.8	*1)
Hori.	10380.0	48.4	42.4	39.8	-2.5	32.9	-	52.8	46.7	73.9	53.9	21.1	7.2	
Hori.	15570.0	43.7	33.2	38.0	-1.2	32.5	-	48.0	37.5	73.9	53.9	25.9	16.4	Floor noise
Hori.	20760.0	47.4	40.8	38.0	-2.0	33.0	-	50.4	43.8	73.9	53.9	23.5	10.1	
Hori.	31140.0	66.5	-	43.5	3.3	75.8	-	37.5	-	68.2	-	30.7	-	
Vert.	5150.0	61.4	41.6	32.4	6.0	31.2	-	68.7	48.8	73.9	53.9	5.2	5.1	*1)
Vert.	10380.0	47.3	41.8	39.8	-2.5	32.9	-	51.6	46.2	73.9	53.9	22.3	7.7	
Vert.	15570.0	43.7	33.2	38.0	-1.2	32.5	-	48.0	37.5	73.9	53.9	25.9	16.4	Floor noise
Vert.	20760.0	48.9	41.2	38.0	-2.0	33.0	-	51.9	44.2	73.9	53.9	22.0	9.7	
Vert.	31140.0	67.1	-	43.5	3.3	75.8	-	38.1	-	68.2	-	30.1	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

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Ise EMC Lab.

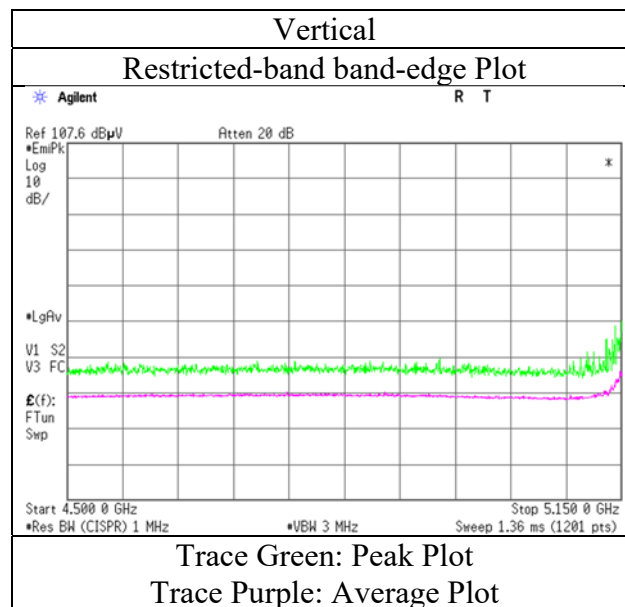
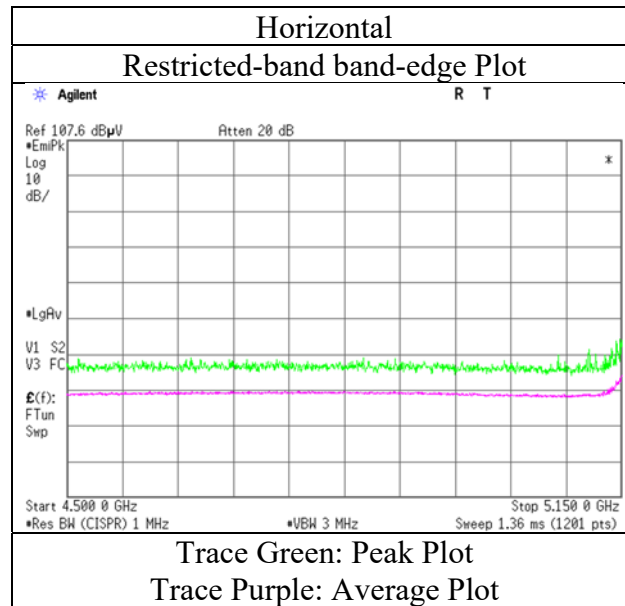
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Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 27, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Hiroyuki Furutaka
(1 GHz - 10 GHz)
Mode Tx 11ac-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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5270 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	51.6	32.5	31.8	7.1	31.2	-	59.2	40.2	73.9	53.9	14.7	13.7	*1)
Hori.	10540.0	51.0	44.1	39.9	-2.4	33.0	-	55.4	48.5	73.9	53.9	18.5	5.4	
Hori.	15810.0	44.0	32.7	37.3	-1.2	32.5	-	47.6	36.3	73.9	53.9	26.3	17.6	Floor noise
Hori.	21080.0	48.1	41.0	38.1	-1.9	33.1	-	51.2	44.1	73.9	53.9	22.7	9.8	
Hori.	31620.0	66.5	56.7	43.7	3.4	74.9	-	38.7	28.8	73.9	53.9	35.3	25.1	
Vert.	5350.0	51.2	32.7	31.8	7.1	31.2	-	58.9	40.4	73.9	53.9	15.1	13.6	*1)
Vert.	10540.0	49.5	43.2	39.9	-2.4	33.0	-	53.9	47.6	73.9	53.9	20.0	6.3	
Vert.	15810.0	44.0	32.7	37.3	-1.2	32.5	-	47.6	36.3	73.9	53.9	26.3	17.6	Floor noise
Vert.	21080.0	47.6	39.9	38.1	-1.9	33.1	-	50.7	43.0	73.9	53.9	23.2	10.9	
Vert.	31620.0	66.3	56.7	43.7	3.4	74.9	-	38.5	28.8	73.9	53.9	35.4	25.1	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	18 deg. C / 43 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Hiroyuki Furutaka	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5310 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	62.1	43.3	31.8	6.1	31.2	-	68.7	49.9	73.9	53.9	5.2	4.0	*1)
Hori.	10620.0	51.1	44.1	39.8	-2.4	33.0	-	55.5	48.5	73.9	53.9	18.4	5.4	
Hori.	15930.0	42.9	32.7	37.6	-1.1	32.6	-	46.9	36.7	73.9	53.9	27.1	17.2	Floor noise
Hori.	21240.0	48.4	40.6	38.2	-1.9	33.1	-	51.6	43.8	73.9	53.9	22.3	10.1	
Hori.	31860.0	66.3	-	43.7	3.4	74.4	-	39.0	-	68.2	-	29.2	-	
Vert.	5350.0	60.4	44.2	31.8	6.1	31.2	-	67.0	50.8	73.9	53.9	6.9	3.1	*1)
Vert.	10620.0	49.1	43.1	39.8	-2.4	33.0	-	53.5	47.5	73.9	53.9	20.4	6.4	
Vert.	15930.0	42.9	32.7	37.6	-1.1	32.6	-	46.9	36.7	73.9	53.9	27.1	17.2	Floor noise
Vert.	21240.0	48.1	40.1	38.2	-1.9	33.1	-	51.3	43.3	73.9	53.9	22.6	10.6	
Vert.	31860.0	65.5	-	43.7	3.4	74.4	-	38.2	-	68.2	-	30.0	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.

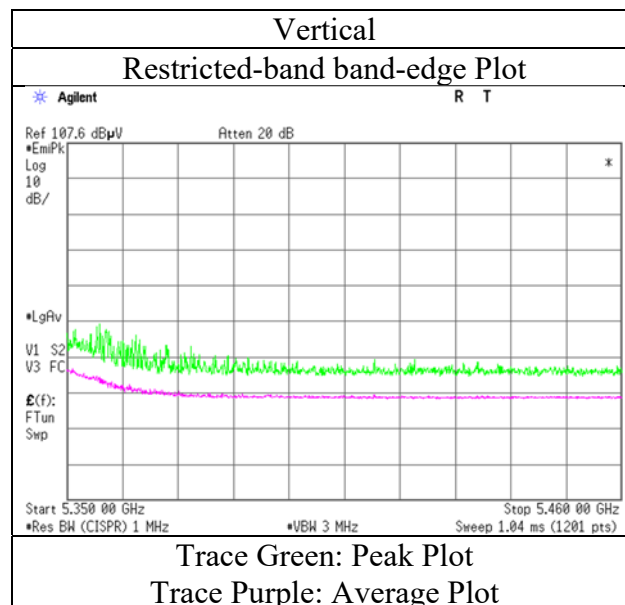
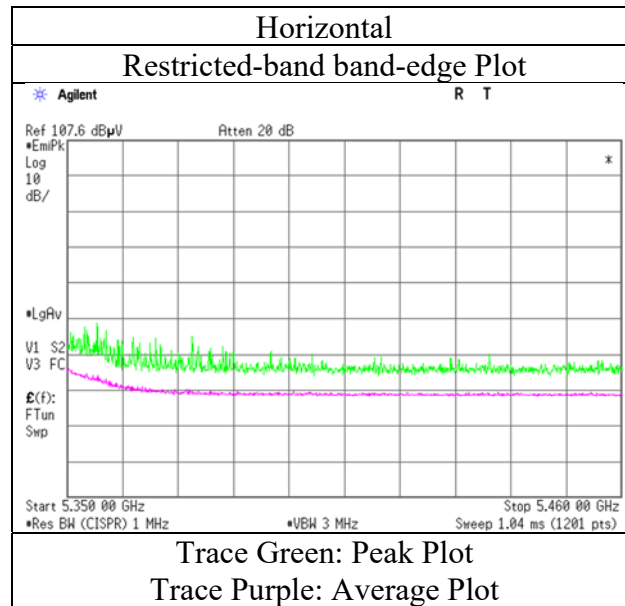
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Radiated Spurious Emission

Report No.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 27, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	22 deg. C / 45 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Junya Okuno	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5510 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3673.4	44.3	37.4	29.2	5.5	31.4	-	47.5	40.7	73.9	53.9	26.4	13.2	
Hori.	5460.0	52.7	34.3	32.1	6.1	31.3	-	59.6	41.2	73.9	53.9	14.3	12.7	*1)
Hori.	5470.0	60.1	-	32.1	6.1	31.3	-	67.1	-	73.9	53.9	6.8	-	*1)
Hori.	11020.0	50.7	43.9	39.9	-2.2	33.2	-	55.3	48.4	73.9	53.9	18.6	5.5	
Hori.	16530.0	43.0	32.7	39.2	-1.0	32.6	-	48.6	38.3	73.9	53.9	25.3	15.6	Floor noise
Hori.	22040.0	47.0	37.8	38.3	-1.8	33.1	-	50.3	41.1	73.9	53.9	23.6	12.8	
Hori.	33060.0	66.5	-	43.8	3.8	75.1	-	39.0	-	68.2	-	29.2	-	
Vert.	3673.4	46.8	40.8	29.2	5.5	31.4	-	50.0	44.0	73.9	53.9	23.9	9.9	
Vert.	5460.0	50.8	33.5	32.1	6.1	31.3	-	57.8	40.4	73.9	53.9	16.1	13.5	*1)
Vert.	5470.0	57.0	-	32.1	6.1	31.3	-	64.0	-	73.9	53.9	9.9	-	*1)
Vert.	11020.0	49.0	41.6	39.9	-2.2	33.2	-	53.5	46.1	73.9	53.9	20.4	7.8	
Vert.	16530.0	43.0	32.7	39.2	-1.0	32.6	-	48.6	38.3	73.9	53.9	25.3	15.6	Floor noise
Vert.	22040.0	47.2	39.9	38.3	-1.8	33.1	-	50.6	43.3	73.9	53.9	23.3	10.6	
Vert.	33060.0	66.2	-	43.8	3.8	75.1	-	38.6	-	68.2	-	29.6	-	

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

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

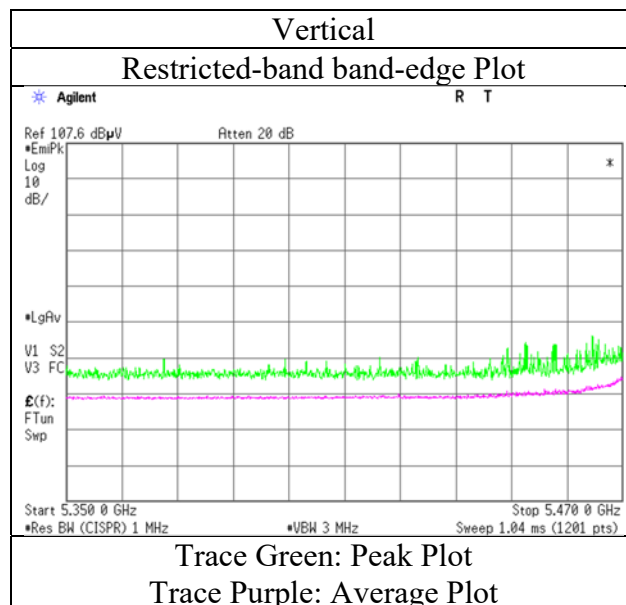
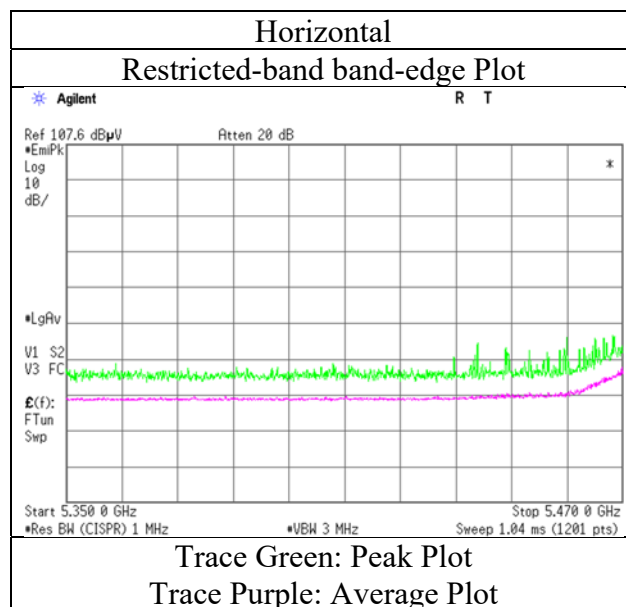
*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 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.	13521383H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	October 27, 2020
Temperature / Humidity	23 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka
	(1 GHz - 10 GHz)
Mode	Tx 11ac-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.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	22 deg. C / 45 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Junya Okuno	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5550 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3700.2	43.4	34.5	29.3	6.3	31.4	-	47.6	38.7	73.9	53.9	26.3	15.2	
Hori.	5460.0	48.5	31.8	32.1	7.2	31.3	-	56.4	39.8	68.2	53.9	11.8	14.1	*1)
Hori.	5470.0	50.0	-	32.1	7.2	31.3	-	58.0	-	68.2	-	10.2	-	*1)
Hori.	11100.0	44.1	44.1	39.7	-2.2	33.2	-	48.4	48.4	73.9	53.9	25.5	5.5	
Hori.	16650.0	43.5	32.6	38.9	-1.0	32.6	-	48.9	38.0	73.9	53.9	25.1	15.9	Floor noise
Hori.	22200.0	48.1	40.5	38.3	-1.7	33.2	-	51.5	43.9	73.9	53.9	22.4	10.0	
Hori.	33300.0	67.4	-	43.8	3.9	75.4	-	39.7	-	68.2	-	28.5	-	
Vert.	3700.2	45.7	38.1	29.3	6.3	31.4	-	49.9	42.3	73.9	53.9	24.0	11.6	
Vert.	5460.0	48.2	32.0	32.1	7.2	31.3	-	56.2	40.0	68.2	53.9	12.1	13.9	*1)
Vert.	5470.0	50.6	-	32.1	7.2	31.3	-	58.6	-	68.2	-	9.6	-	*1)
Vert.	11100.0	51.1	42.6	39.7	-2.2	33.2	-	55.5	46.9	73.9	53.9	18.4	7.0	
Vert.	16650.0	43.5	32.6	38.9	-1.0	32.6	-	48.9	38.0	73.9	53.9	25.1	15.9	Floor noise
Vert.	22200.0	48.6	40.0	38.3	-1.7	33.2	-	52.0	43.4	73.9	53.9	21.9	10.5	
Vert.	33300.0	66.5	-	43.8	3.9	75.4	-	38.7	-	68.2	-	29.5	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz 20log (4 m / 3.0 m) = 2.5 dB
 10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	22 deg. C / 45 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Junya Okuno	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5670 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3779.9	43.4	35.4	29.4	6.4	31.4	-	47.7	39.7	73.9	53.9	26.2	14.2	Floor noise
Hori.	5725.0	52.4	33.1	32.5	7.3	31.3	-	60.9	41.6	122.2	53.9	61.3	12.3	
Hori.	11340.0	48.7	41.5	39.7	-2.2	33.1	-	53.1	45.9	73.9	53.9	20.8	8.0	
Hori.	17010.0	44.2	33.1	41.0	-0.9	32.6	-	51.7	40.6	73.9	53.9	22.2	13.3	
Hori.	22680.0	48.3	41.0	38.4	-1.6	33.2	-	51.8	44.5	73.9	53.9	22.1	9.4	
Hori.	34020.0	68.2	-	43.6	4.0	76.0	-	39.7	-	68.2	-	28.5	-	
Vert.	3779.9	44.3	38.0	29.4	6.4	31.4	-	48.6	42.3	73.9	53.9	25.3	11.6	Floor noise
Vert.	5725.0	54.1	33.7	32.5	7.3	31.3	-	62.6	42.1	122.2	53.9	59.6	11.8	
Vert.	11340.0	48.3	40.2	39.7	-2.2	33.1	-	52.7	44.6	73.9	53.9	21.2	9.3	
Vert.	17010.0	44.2	33.1	41.0	-0.9	32.6	-	51.7	40.6	73.9	53.9	22.2	13.3	
Vert.	22680.0	48.2	39.4	38.4	-1.6	33.2	-	51.7	43.0	73.9	53.9	22.2	10.9	
Vert.	34020.0	69.3	-	43.6	4.0	76.0	-	40.9	-	68.2	-	27.3	-	

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

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

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 10 GHz $20\log(4\text{ m} / 3.0\text{ m}) = 2.5\text{ dB}$
 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)

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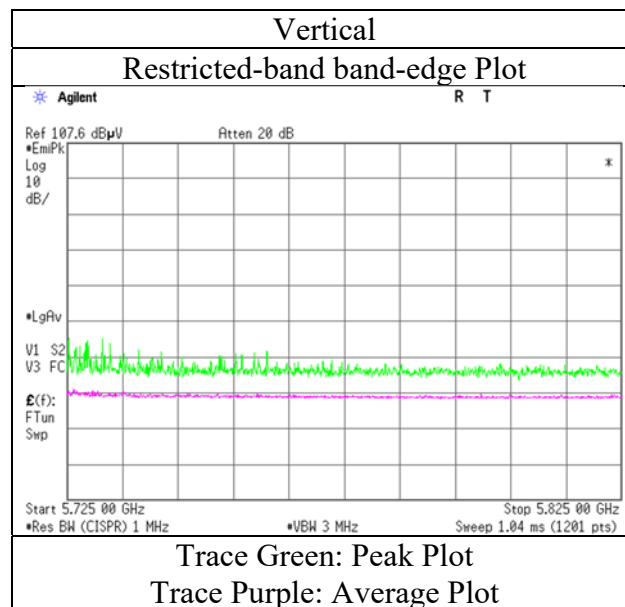
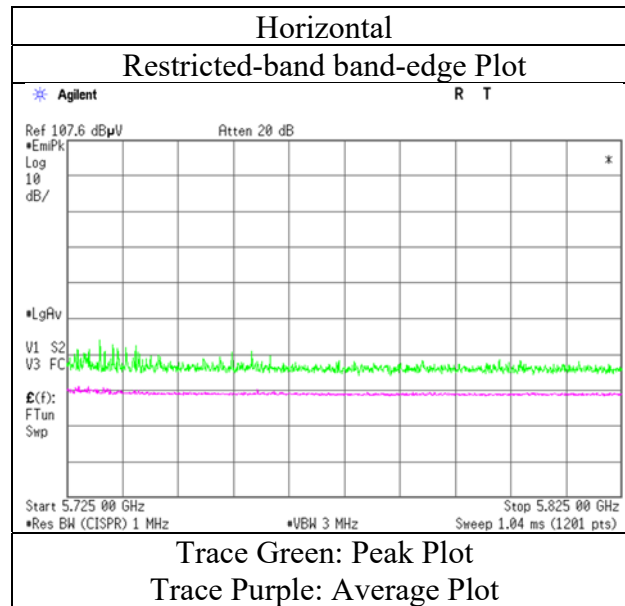
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Radiated Spurious Emission

Report No. 13521383H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date October 27, 2020
Temperature / Humidity 23 deg. C / 42 % RH
Engineer Hiroyuki Furutaka
(1 GHz - 10 GHz)
Mode Tx 11ac-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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Radiated Spurious Emission

Report No.	13521383H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	October 27, 2020	October 31, 2020	November 1, 2020	November 2, 2020
Temperature / Humidity	23 deg. C / 42 % RH	22 deg. C / 37 % RH	22 deg. C / 45 % RH	20 deg. C / 42 % RH
Engineer	Hiroyuki Furutaka	Akihiko Maeda	Junya Okuno	Junya Okuno
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11ac-40 5755 MHz			

Polarity	Frequency	Reading (QP) Reading (PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP) Result (PK)	Result (AV)	Limit (QP) Limit (PK)	Limit (AV)	Margin (QP) Margin (PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	3836.7	43.8	36.6	29.7	5.5	31.4	-	47.6	40.4	73.9	53.9	26.3	13.5	
Hori.	5650.0	44.1	-	32.3	6.2	31.3	-	51.3	-	68.2	53.9	16.9	-	
Hori.	5700.0	49.4	-	32.4	6.2	31.3	-	56.6	-	105.2	53.9	48.6	-	
Hori.	5720.0	57.0	-	32.4	6.2	31.3	-	64.3	-	110.8	53.9	46.5	-	
Hori.	5725.0	57.0	-	32.5	6.2	31.3	-	64.4	-	122.2	53.9	57.9	-	
Hori.	11510.0	46.6	39.4	39.9	-2.2	33.0	-	51.2	44.0	73.9	53.9	22.7	9.9	
Hori.	17265.0	44.1	33.9	41.5	-0.8	32.6	-	52.3	42.0	73.9	53.9	21.7	11.9	Floor noise
Hori.	23020.0	48.6	41.1	38.5	-1.5	33.3	-	52.4	44.9	73.9	53.9	21.5	9.0	
Hori.	34530.0	69.2	-	43.5	4.1	76.1	-	40.8	-	68.2	-	27.4	-	
Vert.	3836.7	44.5	35.9	29.7	5.5	31.4	-	48.3	39.7	73.9	53.9	25.6	14.2	
Vert.	5650.0	47.7	-	32.3	6.2	31.3	-	54.9	-	68.2	53.9	13.3	-	
Vert.	5700.0	53.4	-	32.4	6.2	31.3	-	60.7	-	105.2	53.9	44.6	-	
Vert.	5720.0	61.7	-	32.4	6.2	31.3	-	69.1	-	110.8	53.9	41.7	-	
Vert.	5725.0	62.1	-	32.5	6.2	31.3	-	69.4	-	122.2	53.9	52.8	-	
Vert.	11510.0	46.0	38.2	39.9	-2.2	33.0	-	50.5	42.8	73.9	53.9	23.4	11.1	
Vert.	17265.0	44.1	33.9	41.5	-0.8	32.6	-	52.3	42.0	73.9	53.9	21.7	11.9	Floor noise
Vert.	23020.0	48.1	38.3	38.5	-1.5	33.3	-	51.9	42.1	73.9	53.9	22.0	11.8	
Vert.	34530.0	68.8	-	43.5	4.1	76.1	-	40.4	-	68.2	-	27.9	-	

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