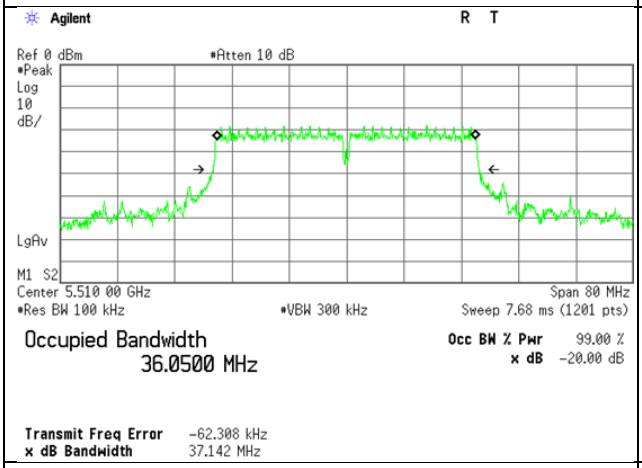
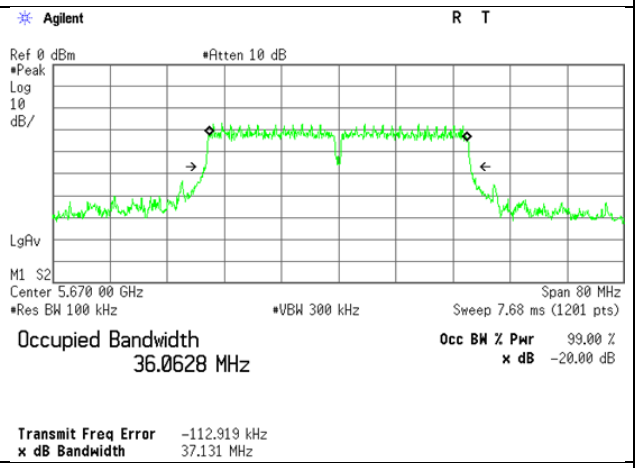
20dB Bandwidth

11n-40

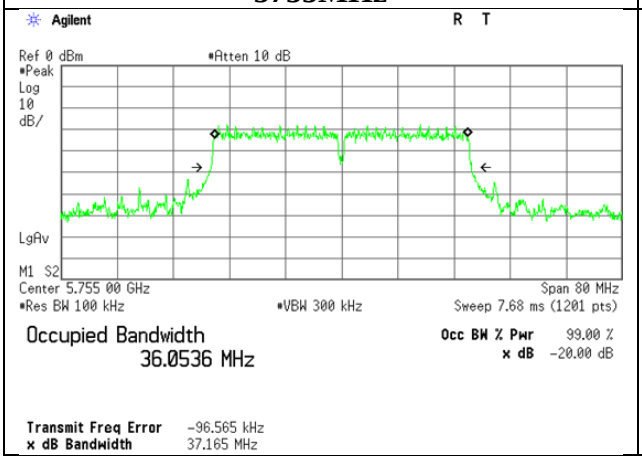
5510MHz



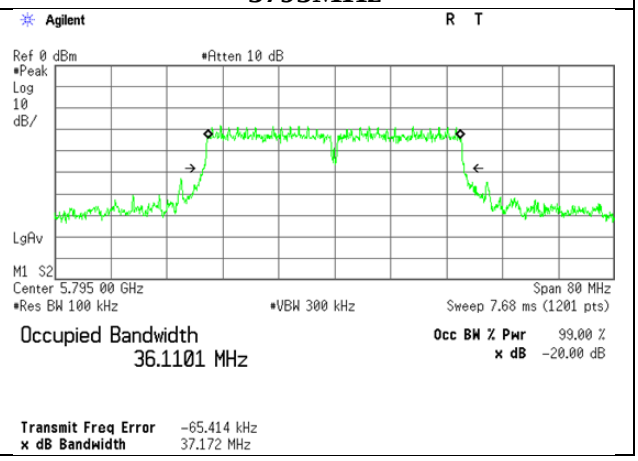
5670MHz



5755MHz



5795MHz



6dB Bandwidth

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	10607274H	
Date	03/02/2015	03/03/2015
Temperature/ Humidity	23deg. C / 32%	22deg. C / 33% RH
Engineer	Tsubasa Takayama	Tsubasa Takayama
Mode	11a Tx / 11n-20 Tx / 11n-40 Tx	

11a

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	16.478	> 500
5785	16.346	> 500
5825	16.452	> 500

11n-20

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	17.691	> 500
5785	17.525	> 500
5825	17.358	> 500

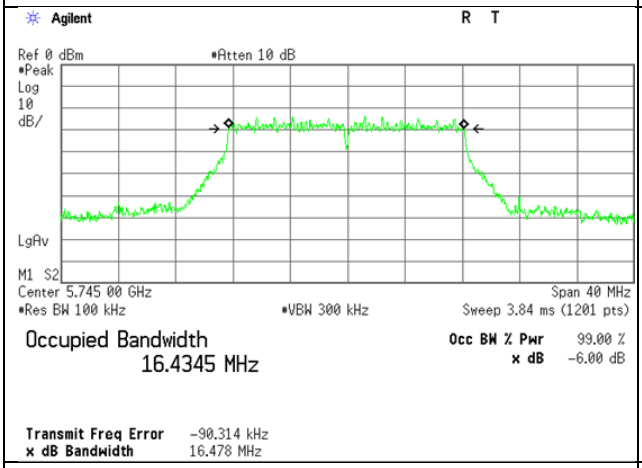
11n-40

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5755	36.092	> 500
5795	36.118	> 500

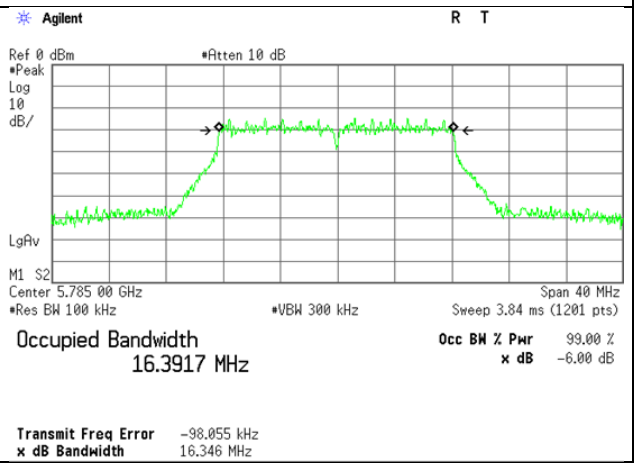
6dB Bandwidth

11a

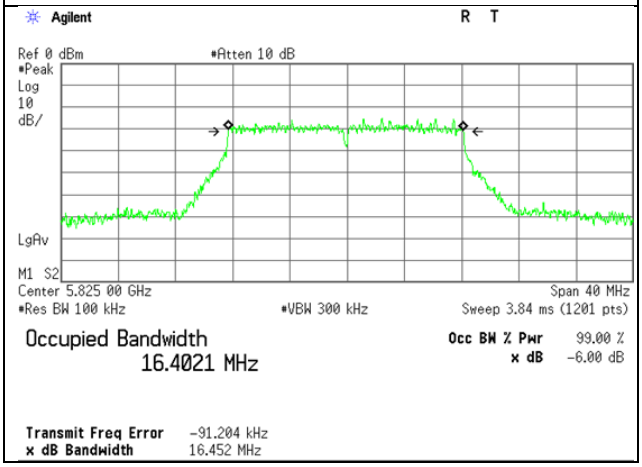
5745MHz



5785MHz



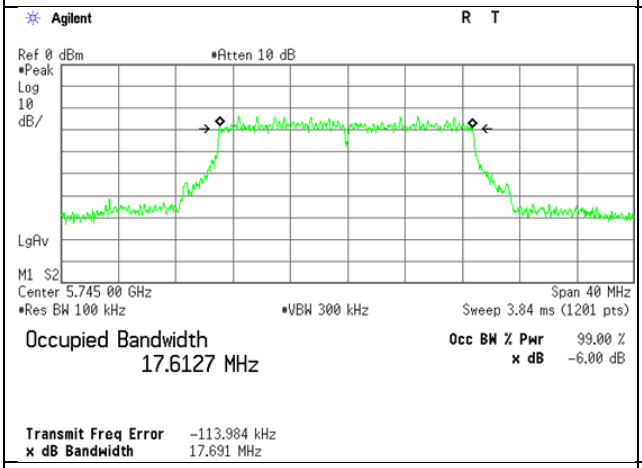
5825MHz



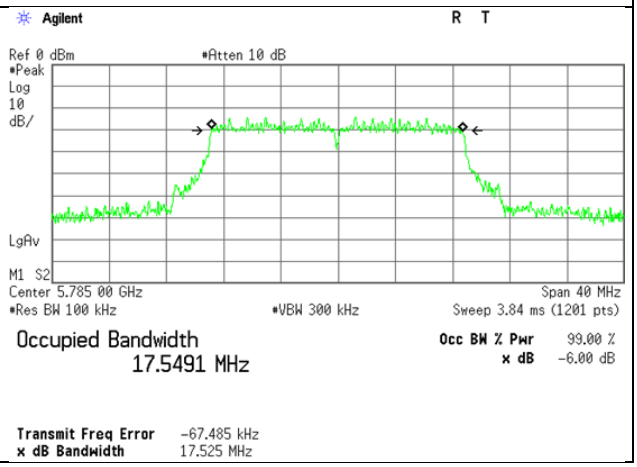
6dB Bandwidth

11n-20

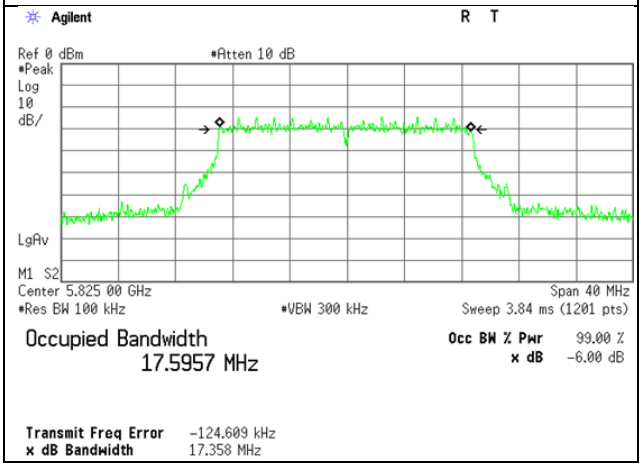
5745MHz



5785MHz

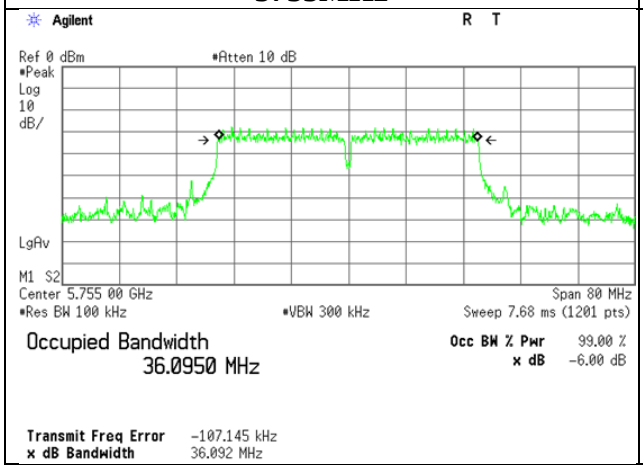
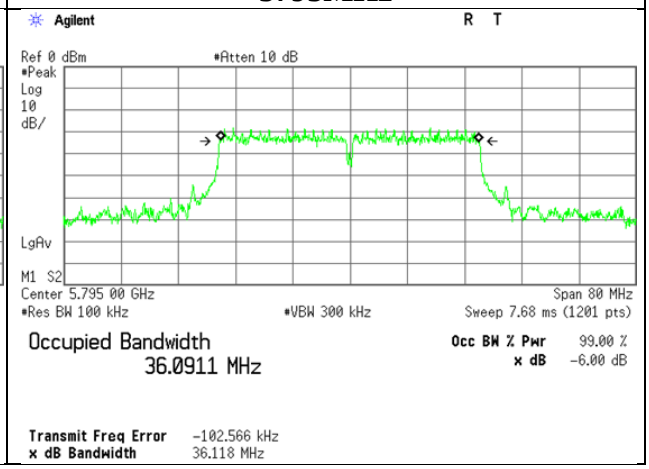


5825MHz



6dB Bandwidth

11n-40

5755MHz	5795MHz
	

Maximum Conducted Output Power

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11a Tx / 11n-20 Tx

11a

Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	Result (Cond.) [dBm]	Result (Cond.) [mW]	Result (e.i.r.p.) [dBm]	Result (e.i.r.p.) [mW]	Limit (Cond.) [dBm]	Limit (e.i.r.p.) [dBm]	Margin (Cond.) [dB]	Margin (e.i.r.p.) [dB]
5180.0	-21.03	2.95	10.12	9.80	6.50	1.84	1.53	8.34	6.83	23.47	29.97	21.63	23.14
5220.0	-21.33	2.96	10.12	9.80	6.50	1.55	1.43	8.05	6.39	23.47	29.97	21.92	23.58
5240.0	-21.53	2.97	10.12	9.80	6.50	1.36	1.37	7.86	6.11	23.47	29.97	22.11	23.86
5260.0	-21.45	2.97	10.12	9.80	6.50	1.44	1.39	7.94	6.23	23.43	29.97	21.99	23.74
5300.0	-21.86	2.98	10.12	9.80	6.50	1.04	1.27	7.54	5.68	23.42	29.97	22.38	24.29
5320.0	-21.73	2.99	10.12	9.80	6.50	1.18	1.31	7.68	5.86	23.42	29.97	22.24	24.11
5500.0	-22.07	3.03	10.12	9.80	6.50	0.88	1.22	7.38	5.47	23.38	29.97	22.50	24.50
5580.0	-21.83	3.04	10.12	9.80	6.50	1.13	1.30	7.63	5.80	23.40	29.97	22.27	24.17
5700.0	-21.79	3.06	10.12	9.80	6.50	1.19	1.31	7.69	5.87	23.42	29.97	22.23	24.10
5745.0	-22.18	3.07	10.12	9.80	6.50	0.81	1.20	7.31	5.38	29.50	36.00	28.69	30.62
5785.0	-22.49	3.07	10.12	9.80	6.50	0.50	1.12	7.00	5.01	29.50	36.00	29.00	30.99
5825.0	-23.04	3.08	10.12	9.80	6.50	-0.04	0.99	6.46	4.42	29.50	36.00	29.54	31.58

Result(Cond.) = Reading + Cable Loss + Atten.Loss + Duty Factor
Result(e.i.r.p.) = Reading + Cable Loss + Atten.Loss + Antenna Gain + Duty Factor
Conducted limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(ⅳ) Limit(Cond.) = 23.97dBm(250mW)
15.407(a)(1)(ⅳ) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi)
15.407(a)(2) Limit(Cond.) = 23.97dBm(250mW) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(2) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi) or 11 dBm + 6dBi + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(3) Limit(Cond.) = 30dBm(1W)
15.407(a)(3) Limit(e.i.r.p) = 30dBm + 6dBi (1W+6dBi)

11n-20

Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	Result (Cond.) [dBm]	Result (Cond.) [mW]	Result (e.i.r.p.) [dBm]	Result (e.i.r.p.) [mW]	Limit (Cond.) [dBm]	Limit (e.i.r.p.) [dBm]	Margin (Cond.) [dB]	Margin (e.i.r.p.) [dB]
5180.0	-22.02	2.95	10.12	9.57	6.50	0.62	1.15	7.12	5.16	23.47	29.97	22.85	24.81
5220.0	-21.17	2.96	10.12	9.57	6.50	1.48	1.41	7.98	6.29	23.47	29.97	21.99	23.68
5240.0	-21.40	2.97	10.12	9.57	6.50	1.26	1.34	7.76	5.97	23.47	29.97	22.21	24.00
5260.0	-21.31	2.97	10.12	9.57	6.50	1.35	1.37	7.85	6.10	23.47	29.97	22.12	23.87
5300.0	-21.66	2.98	10.12	9.57	6.50	1.01	1.26	7.51	5.64	23.46	29.97	22.45	24.33
5320.0	-21.64	2.99	10.12	9.57	6.50	1.04	1.27	7.54	5.67	23.47	29.97	22.43	24.30
5500.0	-21.74	3.03	10.12	9.57	6.50	0.98	1.25	7.48	5.60	23.47	29.97	22.49	24.37
5580.0	-21.46	3.04	10.12	9.57	6.50	1.27	1.34	7.77	5.99	23.47	29.97	22.20	23.98
5700.0	-21.87	3.06	10.12	9.57	6.50	0.88	1.22	7.38	5.47	23.47	29.97	22.59	24.50
5745.0	-22.22	3.07	10.12	9.57	6.50	0.54	1.13	7.04	5.05	29.50	36.00	28.96	30.95
5785.0	-22.69	3.07	10.12	9.57	6.50	0.07	1.02	6.57	4.54	29.50	36.00	29.43	31.46
5825.0	-22.98	3.08	10.12	9.57	6.50	-0.21	0.95	6.29	4.25	29.50	36.00	29.71	31.75

Result(Cond.) = Reading + Cable Loss + Atten.Loss + Duty Factor
Result(e.i.r.p.) = Reading + Cable Loss + Atten.Loss + Antenna Gain + Duty Factor
Conducted limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(ⅳ) Limit(Cond.) = 23.97dBm(250mW)
15.407(a)(1)(ⅳ) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi)
15.407(a)(2) Limit(Cond.) = 23.97dBm(250mW) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(2) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi) or 11 dBm + 6dBi + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(3) Limit(Cond.) = 30dBm(1W)
15.407(a)(3) Limit(e.i.r.p) = 30dBm + 6dBi (1W+6dBi)

Maximum Conducted Output Power

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11n-40 Tx

11n-40

Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	Result (Cond.) [dBm]	Result (Cond.) [mW]	Result (e.i.r.p.) [dBm]	Result (e.i.r.p.) [mW]	Limit (Cond.) [dBm]	Limit (e.i.r.p.) [dBm]	Margin (Cond.) [dB]	Margin (e.i.r.p.) [dB]
5190.0	-23.76	2.96	10.12	9.66	6.50	-1.02	0.79	5.48	3.53	23.47	29.97	24.49	24.49
5230.0	-24.71	2.97	10.12	9.66	6.50	-1.96	0.64	4.54	2.84	23.47	29.97	25.43	25.43
5270.0	-24.87	2.98	10.12	9.66	6.50	-2.11	0.62	4.39	2.75	23.47	29.97	25.58	25.58
5310.0	-25.49	2.99	10.12	9.66	6.50	-2.72	0.53	3.78	2.39	23.47	29.97	26.19	26.19
5510.0	-25.41	3.03	10.12	9.66	6.50	-2.60	0.55	3.90	2.45	23.47	29.97	26.07	26.07
5590.0	-25.26	3.04	10.12	9.66	6.50	-2.44	0.57	4.06	2.55	23.47	29.97	25.91	25.91
5670.0	-25.77	3.05	10.12	9.66	6.50	-2.94	0.51	3.56	2.27	23.47	29.97	26.41	26.41
5755.0	-25.28	3.07	10.12	9.66	6.50	-2.43	0.57	4.07	2.55	29.50	36.00	31.93	31.93
5795.0	-25.80	3.07	10.12	9.66	6.50	-2.95	0.51	3.55	2.26	29.50	36.00	32.45	32.45

Result(Cond.) = Reading + Cable Loss + Atten.Loss + Duty Factor
Result(e.i.r.p.) = Reading + Cable Loss + Atten.Loss + Antenna Gain + Duty Factor
Conducted limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(iv) Limit(Cond.) = 23.97dBm(250mW)
15.407(a)(1)(iv) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi)
15.407(a)(2) Limit(Cond.) = 23.97dBm(250mW) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(2) Limit(e.i.r.p) = 29.97dBm (250mW + 6dBi) or 11 dBm + 6dBi + 10 log B, where B is the 26 dB emission bandwidth in megahertz
15.407(a)(3) Limit(Cond.) = 30dBm(1W)
15.407(a)(3) Limit(e.i.r.p) = 30dBm + 6dBi (1W+6dBi)

Maximum Conducted Output Power & Maximum Power Spectral Density
(Reference data)

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11a Tx

5180MHz

Data Rate [Mbps]	Reading [dBm]	Duty Factor [dB]	Result [dBm]	Remark
6	-22.06	9.56	-12.50	
9	-22.13	9.83	-12.30	
12	-22.10	9.64	-12.46	
18	-22.08	9.76	-12.32	
24	-21.10	9.32	-11.78	
36	-21.66	9.82	-11.84	
48	-21.13	9.80	-11.33	
54	-21.03	9.80	-11.23	*

* Worst Rate

All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power & Maximum Power Spectral Density
(Reference data)

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11n-20 Tx

5180MHz

Data Rate [MCS]	Reading [dBm]	Duty Factor [dB]	Result [dBm]	Remark
0	-22.36	9.87	-12.49	
1	-22.47	9.72	-12.75	
2	-22.37	9.74	-12.63	
3	-22.32	9.74	-12.58	
4	-22.24	9.54	-12.70	
5	-22.11	9.54	-12.54	
6	-22.04	9.54	-12.50	
7	-22.02	9.57	-12.45	*

* Worst Rate

All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power & Maximum Power Spectral Density
(Reference data)

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11n-40 Tx

5190MHz

Data Rate [MCS]	Reading [dBm]	Duty Factor [dB]	Result [dBm]	Remark
0	-24.02	9.40	-14.62	
1	-23.96	9.40	-14.29	
2	-23.99	9.40	-14.59	
3	-23.84	9.67	-14.17	
4	-23.86	9.69	-14.17	
5	-23.89	9.68	-14.21	
6	-23.77	9.66	-14.11	
7	-23.76	9.66	-14.10	*

* Worst Rate

All comparison were carried out on same frequency and measurement factors.

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11a Tx / 11n-20 Tx

11a

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Correction factor [dB]	Antenna Gain [dBi]	Result [dBm/MHz] or [dBm/500kHz]	Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]
5180.0	-29.55	2.95	10.12	9.80	0.00	6.50	-6.68	10.50	17.18
5220.0	-31.56	2.96	10.12	9.80	0.00	6.50	-8.68	10.50	19.18
5240.0	-31.65	2.97	10.12	9.80	0.00	6.50	-8.76	10.50	19.26
5260.0	-31.06	2.97	10.12	9.80	0.00	6.50	-8.17	10.50	18.67
5300.0	-30.85	2.98	10.12	9.80	0.00	6.50	-7.94	10.50	18.44
5320.0	-31.74	2.99	10.12	9.80	0.00	6.50	-8.83	10.50	19.33
5500.0	-33.50	3.03	10.12	9.80	0.00	6.50	-10.55	10.50	21.05
5580.0	-31.74	3.04	10.12	9.80	0.00	6.50	-8.77	10.50	19.27
5700.0	-32.42	3.06	10.12	9.80	0.00	6.50	-9.44	10.50	19.94
5745.0	-36.48	3.07	10.12	9.80	0.27	6.50	-13.23	29.50	42.73
5785.0	-36.99	3.07	10.12	9.80	0.27	6.50	-13.73	29.50	43.23
5825.0	-36.21	3.08	10.12	9.80	0.27	6.50	-12.94	29.50	42.44

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator + Duty factor + Correction factor
Limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(iv) Limit = 11.00dBm in any 1 megahertz
15.407(a)(2) Limit = = 11.00dBm in any 1 megahertz
15.407(a)(3) Limit(Cond.) = 30dBm in any 500-kHz band
*RBW is set to be 470kHz for 5.725-5.850GHz, so 10log(500kHz/470kHz) was added to the test result as correction factor.

11n-20

Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Correction factor [dB]	Antenna Gain [dBi]	Result [dBm/MHz] or [dBm/500kHz]	Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]
5180.0	-31.64	2.95	10.12	9.57	0.00	6.50	-9.00	10.50	19.50
5220.0	-33.30	2.96	10.12	9.57	0.00	6.50	-10.65	10.50	21.15
5240.0	-32.96	2.97	10.12	9.57	0.00	6.50	-10.30	10.50	20.80
5260.0	-32.46	2.97	10.12	9.57	0.00	6.50	-9.80	10.50	20.30
5300.0	-32.43	2.98	10.12	9.57	0.00	6.50	-9.76	10.50	20.26
5320.0	-33.39	2.99	10.12	9.57	0.00	6.50	-10.72	10.50	21.22
5500.0	-33.16	3.03	10.12	9.57	0.00	6.50	-10.44	10.50	20.94
5580.0	-31.91	3.04	10.12	9.57	0.00	6.50	-9.18	10.50	19.68
5700.0	-33.03	3.06	10.12	9.57	0.00	6.50	-10.28	10.50	20.78
5745.0	-35.27	3.07	10.12	9.57	0.27	6.50	-12.24	29.50	41.74
5785.0	-36.51	3.07	10.12	9.57	0.27	6.50	-13.48	29.50	42.98
5825.0	-38.26	3.08	10.12	9.57	0.27	6.50	-15.22	29.50	44.72

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator + Duty factor + Correction factor
Limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(iv) Limit = 11.00dBm in any 1 megahertz
15.407(a)(2) Limit = = 11.00dBm in any 1 megahertz
15.407(a)(3) Limit(Cond.) = 30dBm in any 500-kHz band
*RBW is set to be 470kHz for 5.725-5.850GHz, so 10log(500kHz/470kHz) was added to the test result as correction factor.

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11n-40 Tx

11n-40

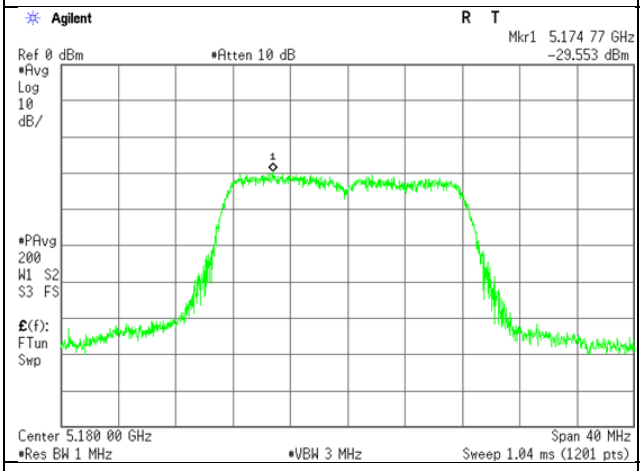
Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Correction factor [dB]	Antenna Gain [dBi]	Result [dBm/MHz] or [dBm/500kHz]	Limit [dBm/MHz] or [dBm/500kHz]	Margin [dB]
5190.0	-36.39	2.96	10.12	9.66	0.00	6.50	-13.65	10.50	24.15
5230.0	-36.97	2.97	10.12	9.66	0.00	6.50	-14.22	10.50	24.72
5270.0	-37.23	2.98	10.12	9.66	0.00	6.50	-14.47	10.50	24.97
5310.0	-37.61	2.99	10.12	9.66	0.00	6.50	-14.84	10.50	25.34
5510.0	-37.89	3.03	10.12	9.66	0.00	6.50	-15.08	10.50	25.58
5590.0	-37.02	3.04	10.12	9.66	0.00	6.50	-14.20	10.50	24.70
5670.0	-36.42	3.05	10.12	9.66	0.00	6.50	-13.59	10.50	24.09
5755.0	-40.16	3.07	10.12	9.66	0.27	6.50	-17.04	29.50	46.54
5795.0	-40.69	3.07	10.12	9.66	0.27	6.50	-17.57	29.50	47.07

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator + Duty factor + Correction factor
Limit was calcutated by following because Antenna gain is 6.5dBi;
POutLimit = PLimit－(GTx－6)
15.407(a)(1)(iv) Limit = 11.00dBm in any 1 megahertz
15.407(a)(2) Limit = = 11.00dBm in any 1 megahertz
15.407(a)(3) Limit(Cond.) = 30dBm in any 500-kHz band
*RBW is set to be 470kHz for 5.725-5.850GHz, so 10log(500kHz/470kHz) was added to the test result as correction factor.

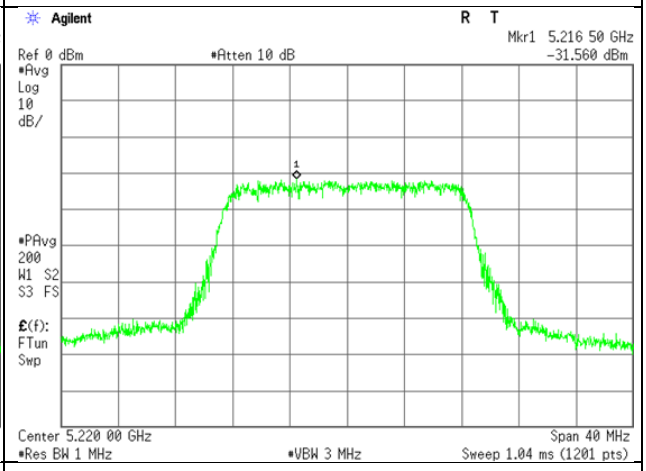
Maximum Power Spectral Density

11a

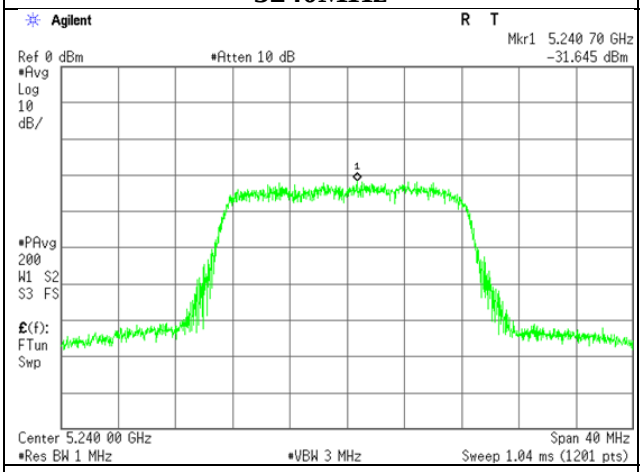
5180MHz



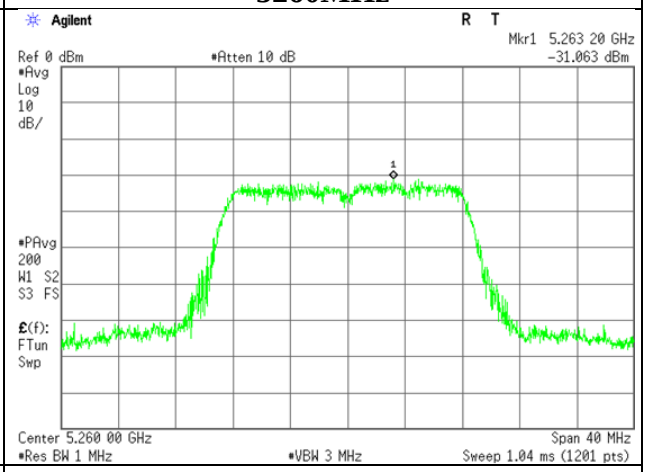
5220MHz



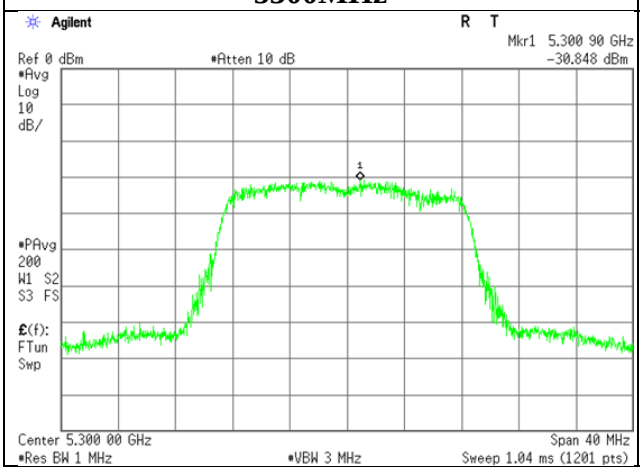
5240MHz



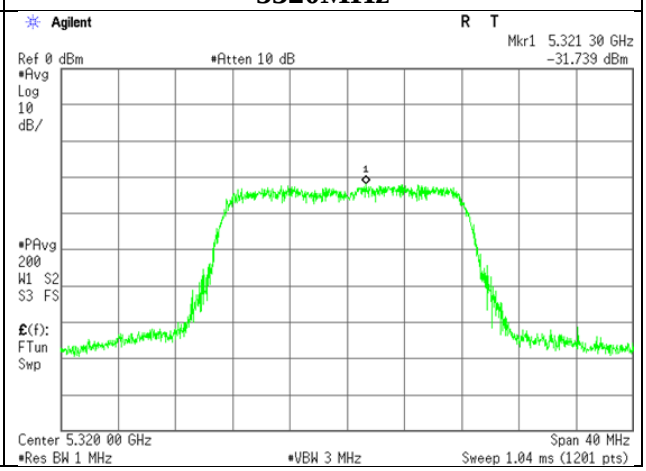
5260MHz



5300MHz



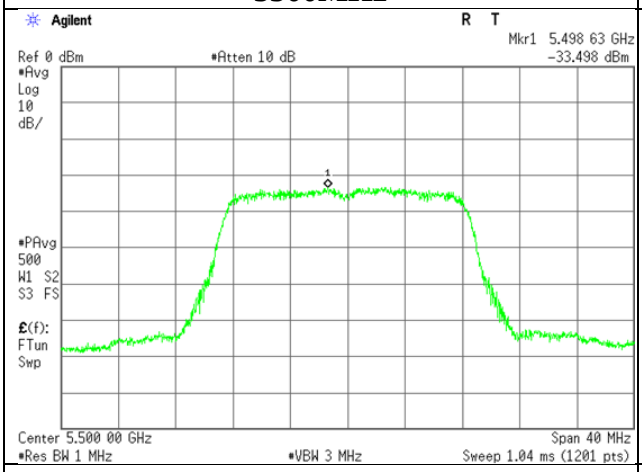
5320MHz



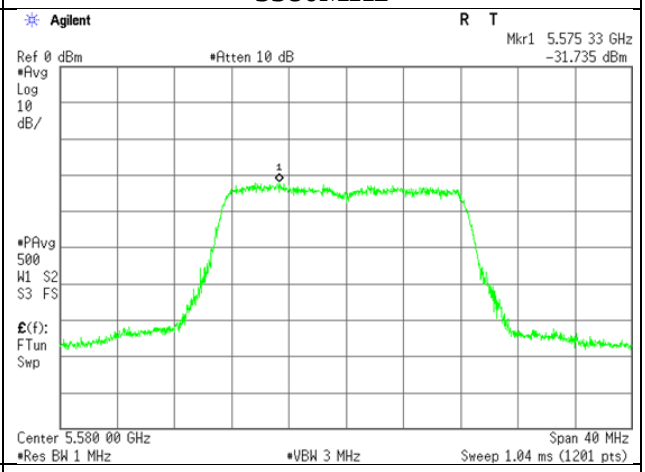
Maximum Power Spectral Density

11a

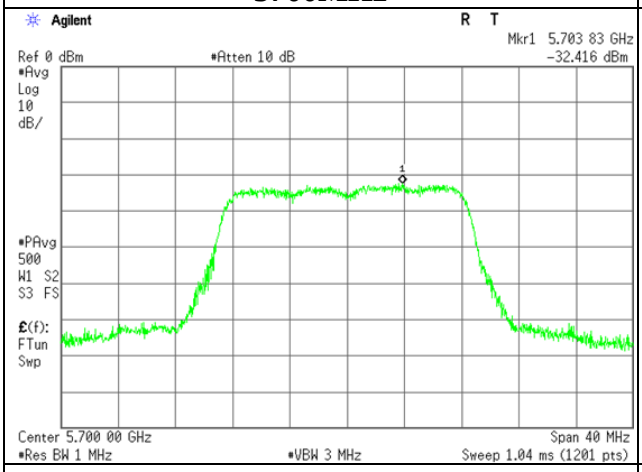
5500MHz



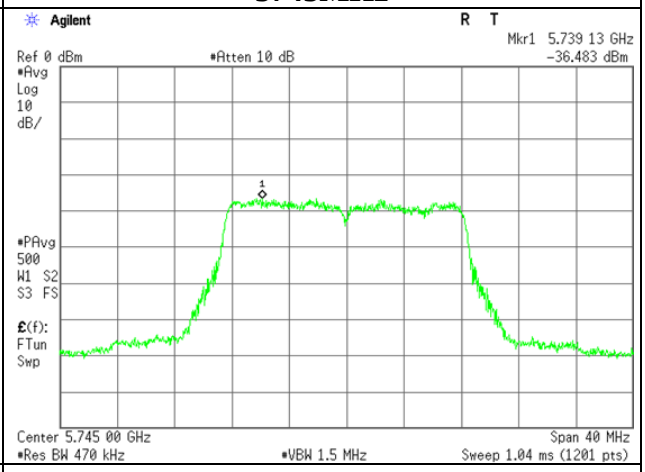
5580MHz



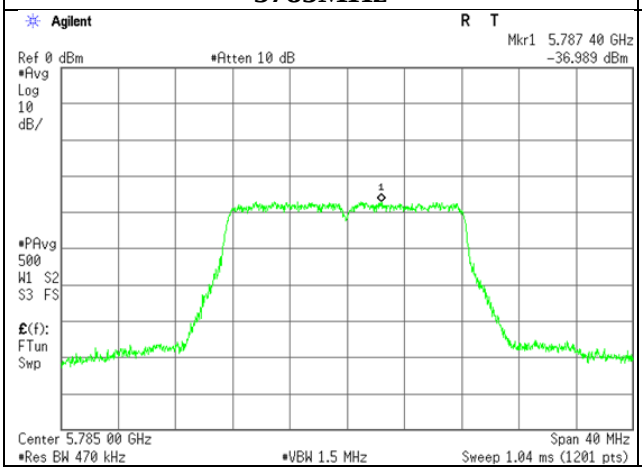
5700MHz



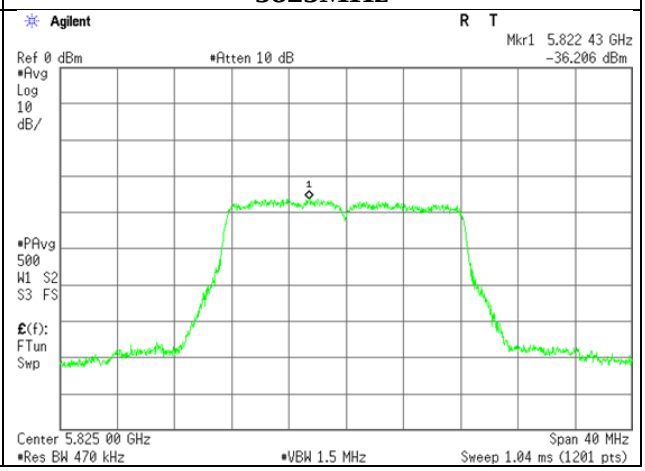
5745MHz



5785MHz



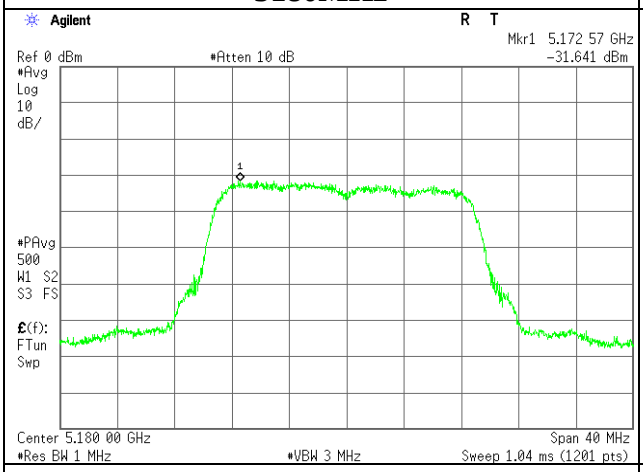
5825MHz



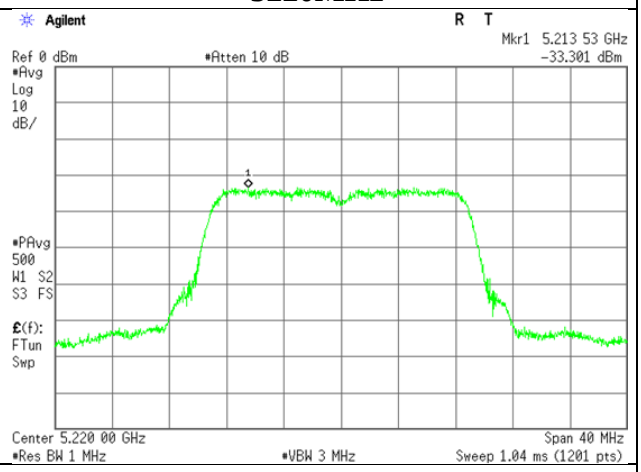
Maximum Power Spectral Density

11n-20

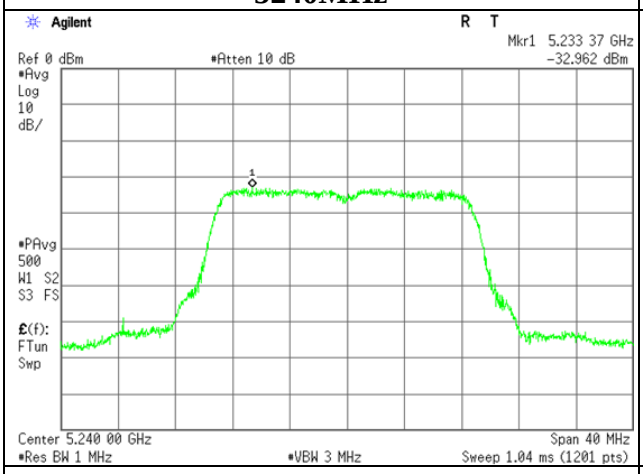
5180MHz



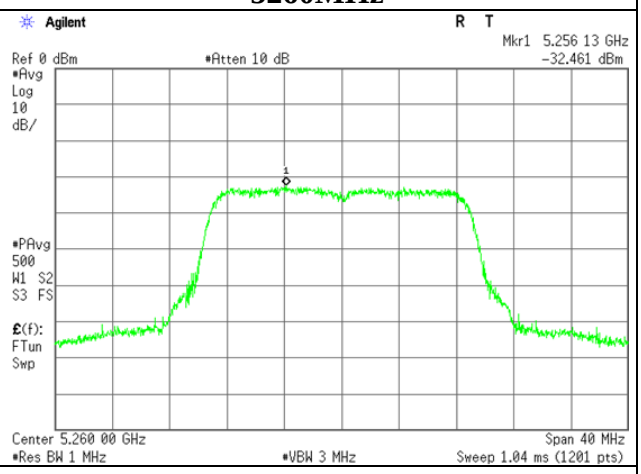
5220MHz



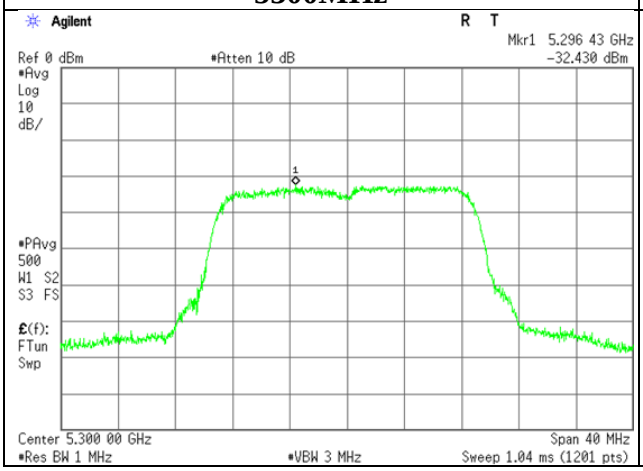
5240MHz



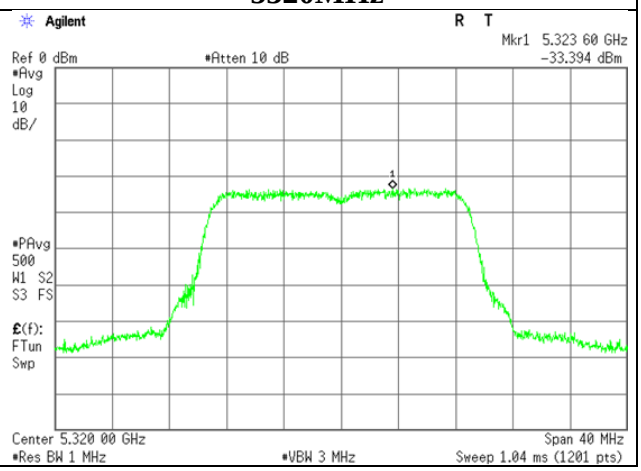
5260MHz



5300MHz



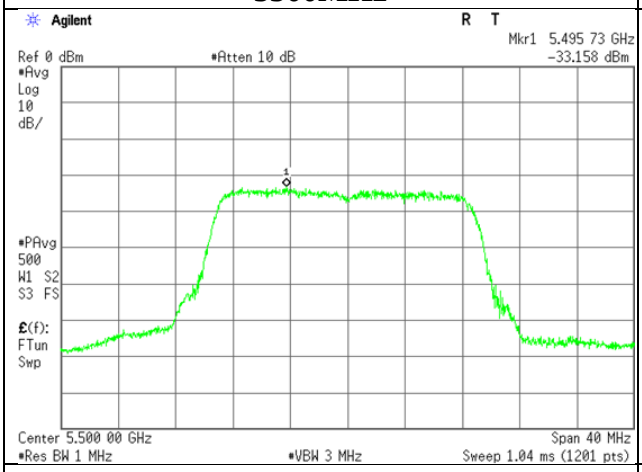
5320MHz



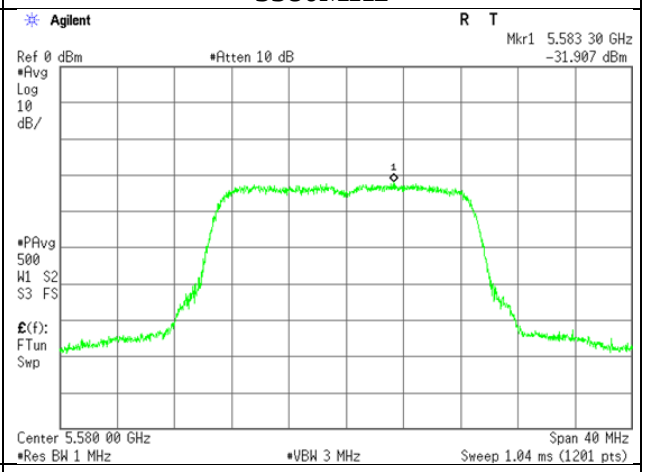
Maximum Power Spectral Density

11n-20

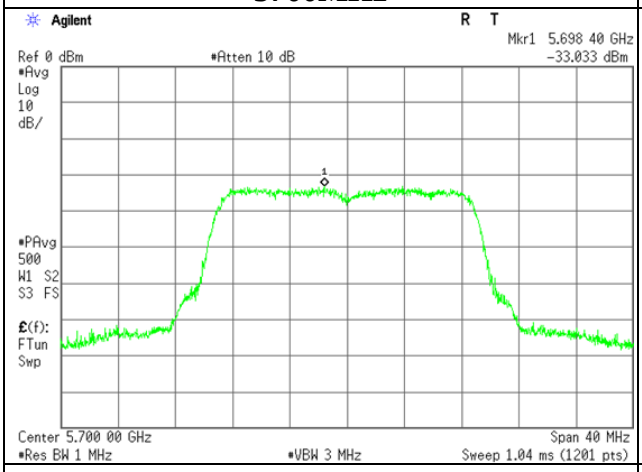
5500MHz



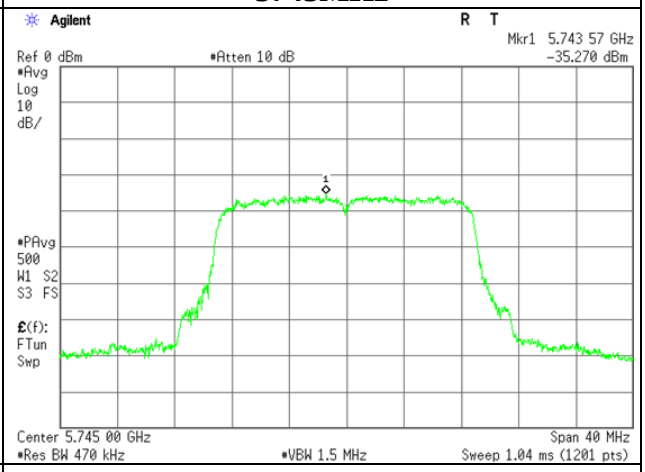
5580MHz



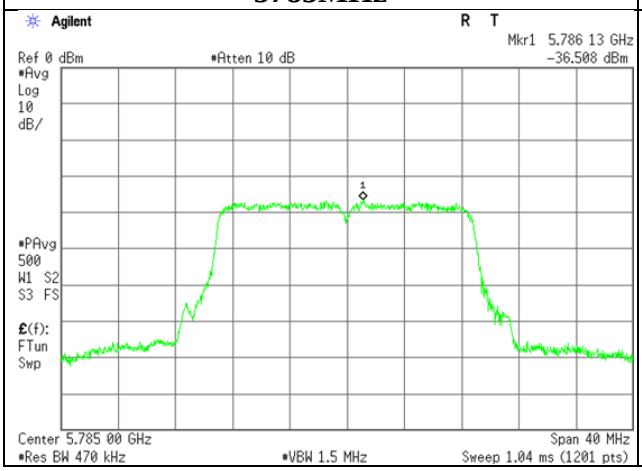
5700MHz



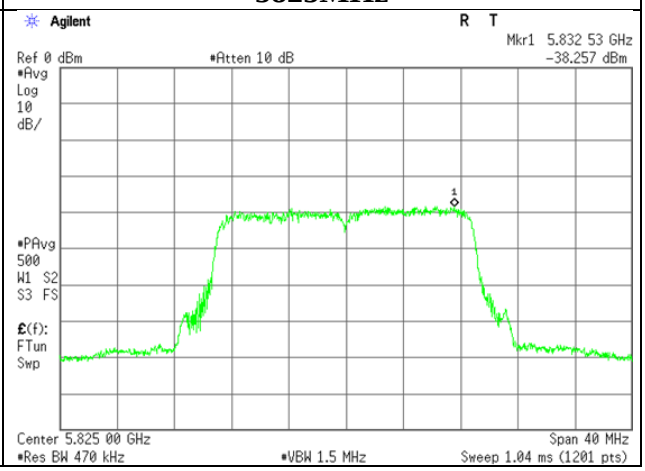
5745MHz



5785MHz



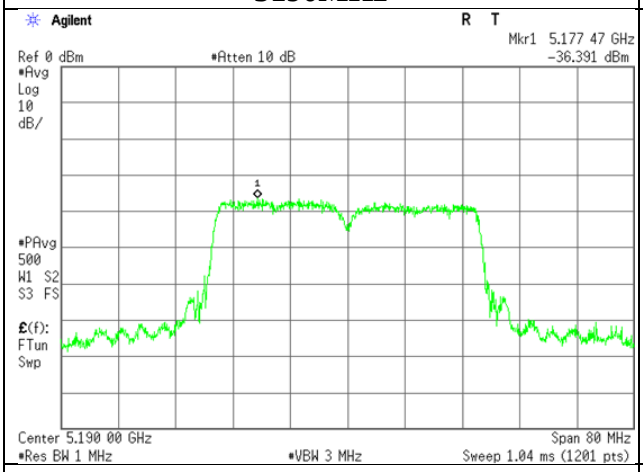
5825MHz



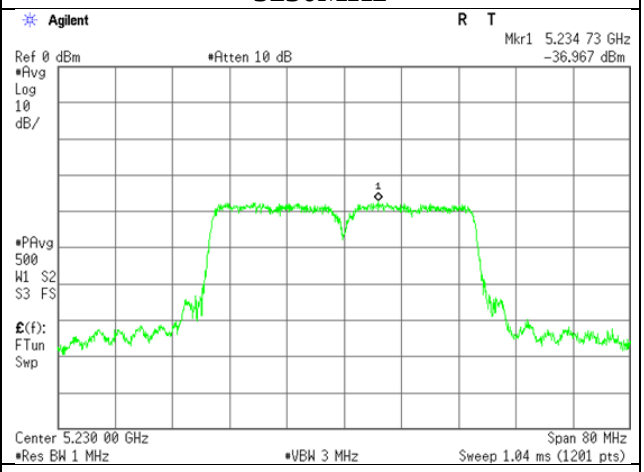
Maximum Power Spectral Density

11n-40

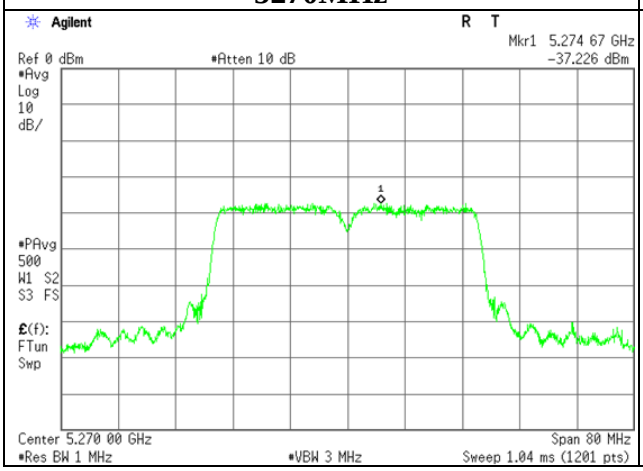
5190MHz



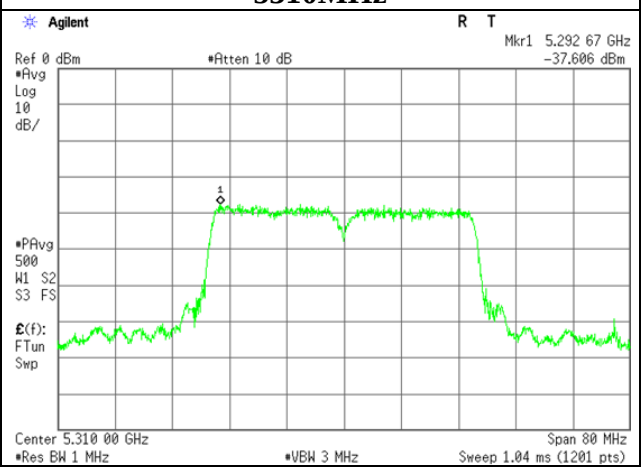
5230MHz



5270MHz



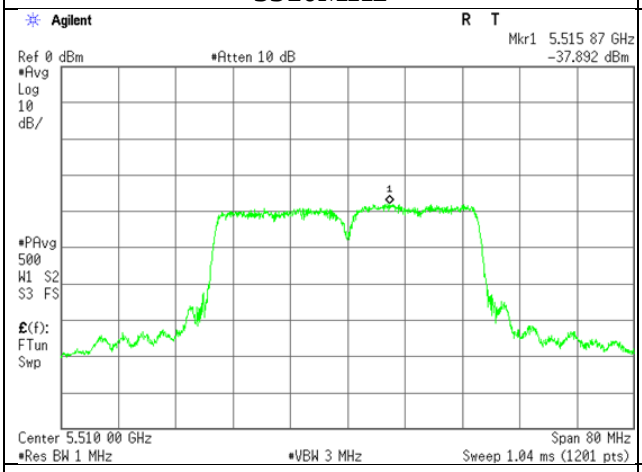
5310MHz



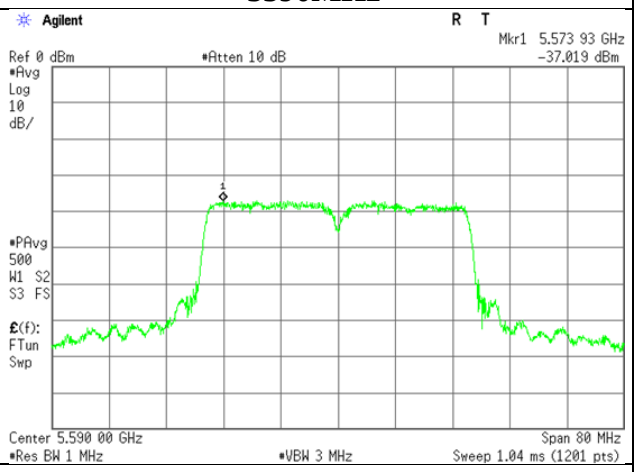
Maximum Power Spectral Density

11n-40

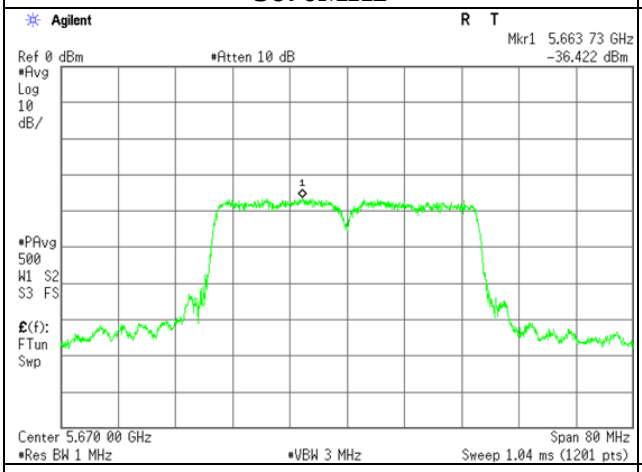
5510MHz



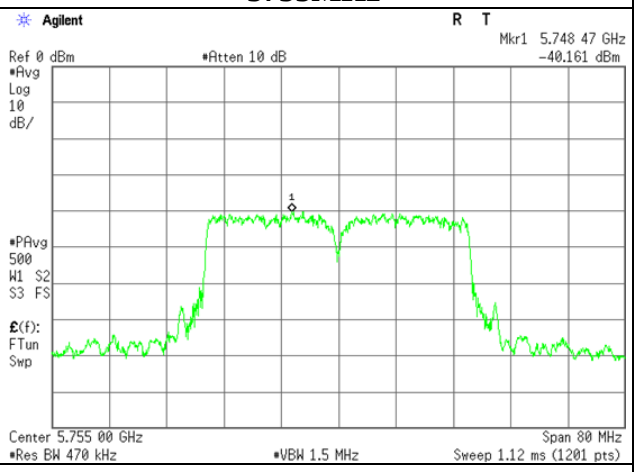
5590MHz



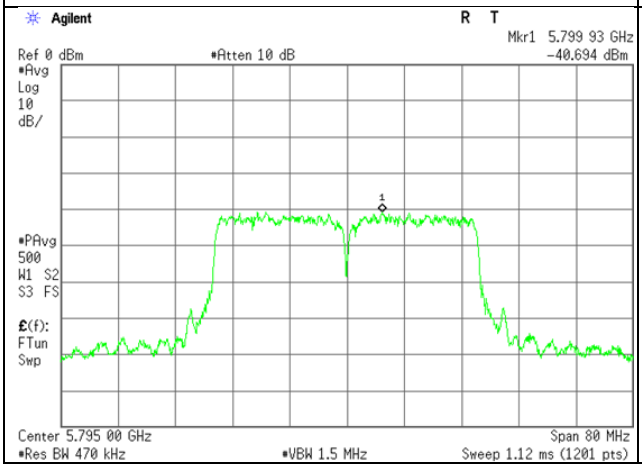
5670MHz



5755MHz



5795MHz



Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/09/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 34% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Tsubasa Takayama (Below 1GHz)
Mode	11a Tx 5180MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	75.897	QP	36.0	6.3	7.7	32.1	17.9	40.0	22.1	Outside	
Hori	146.253	QP	34.1	14.7	8.6	32.1	25.3	43.5	18.2	Outside	
Hori	243.749	QP	35.5	17.1	9.4	32.0	30.0	46.0	16.0	Inside	
Hori	341.243	QP	34.0	16.0	10.2	31.9	28.3	46.0	17.7	Outside	
Hori	374.976	QP	33.3	16.9	10.4	31.9	28.7	46.0	17.3	Outside	
Hori	627.167	QP	33.4	19.7	12.0	32.0	33.1	46.0	12.9	Outside	
Hori	983.016	QP	41.0	23.3	13.6	30.5	47.4	53.9	6.5	Inside	
Hori	1249.977	PK	57.1	24.7	1.8	34.6	49.0	68.2	19.2	Outside	
Hori	1844.445	PK	64.5	25.9	2.2	33.2	59.4	68.2	8.8	Outside	
Hori	2499.933	PK	56.4	26.9	2.5	32.7	53.1	73.9	20.8	Inside	
Hori	3132.345	PK	50.4	27.5	2.8	32.4	48.3	68.2	19.9	Outside	
Hori	5150.000	PK	41.3	31.3	3.7	31.7	44.6	68.2	23.6	Bandedge	
Hori	8197.121	PK	48.8	37.1	4.8	32.9	57.8	73.9	16.1	Inside	
Hori	10360.000	PK	41.3	38.8	-2.1	33.6	44.4	68.2	23.8	Outside	Floor Noise
Hori	15540.000	PK	43.5	39.1	-0.9	32.1	49.6	73.9	24.3	Inside	Floor Noise
Hori	2499.933	AV	54.5	26.9	2.5	32.7	51.2	53.9	2.7	Inside	
Hori	5150.000	AV	31.6	31.3	3.7	31.7	34.9	53.9	19.0	Bandedge	
Hori	8197.121	AV	38.6	37.1	4.8	32.9	47.6	53.9	6.3	Inside	
Hori	15540.000	AV	35.0	39.1	-0.9	32.1	41.1	53.9	12.8	Inside	Floor Noise
Vert	79.634	QP	40.0	6.3	7.8	32.1	22.0	40.0	18.0	Outside	
Vert	108.000	QP	35.2	11.3	8.1	32.1	22.5	43.5	21.0	Inside	
Vert	146.253	QP	36.4	14.7	8.6	32.1	27.6	43.5	15.9	Outside	
Vert	243.749	QP	36.0	17.1	9.4	32.0	30.5	46.0	15.5	Inside	
Vert	276.000	QP	33.0	18.6	9.8	31.9	29.5	46.0	16.5	Inside	
Vert	341.263	QP	33.0	16.0	10.2	31.9	27.3	46.0	18.7	Outside	
Vert	375.000	QP	32.1	16.9	10.4	31.9	27.5	46.0	18.5	Outside	
Vert	627.177	QP	31.0	19.7	12.0	32.0	30.7	46.0	15.3	Outside	
Vert	719.949	QP	31.3	20.8	12.4	31.9	32.6	46.0	13.4	Outside	
Vert	983.016	QP	38.0	23.3	13.6	30.5	44.4	53.9	9.5	Inside	
Vert	1249.868	PK	56.6	24.7	1.8	34.6	48.5	68.2	19.7	Outside	
Vert	1844.330	PK	63.3	25.9	2.2	33.2	58.2	68.2	10.0	Outside	
Vert	2499.933	PK	56.7	26.9	2.5	32.7	53.4	73.9	20.5	Inside	
Vert	3132.322	PK	52.7	27.5	2.8	32.4	50.6	68.2	17.6	Outside	
Vert	5150.000	PK	42.2	31.3	3.7	31.7	45.5	68.2	22.7	Bandedge	
Vert	8195.911	PK	47.7	37.1	4.8	32.9	56.7	73.9	17.2	Inside	
Vert	10360.000	PK	42.4	38.8	-2.1	33.6	45.5	68.2	22.7	Outside	Floor Noise
Vert	15540.000	PK	43.5	39.1	-0.9	32.1	49.6	73.9	24.3	Inside	Floor Noise
Vert	2499.933	AV	54.8	26.9	2.5	32.7	51.5	53.9	2.4	Inside	
Vert	5150.000	AV	32.0	31.3	3.7	31.7	35.3	53.9	18.6	Bandedge	
Vert	8195.911	AV	37.1	37.1	4.8	32.9	46.1	53.9	7.8	Inside	
Vert	15540.000	AV	34.9	39.1	-0.9	32.1	41.0	53.9	12.9	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

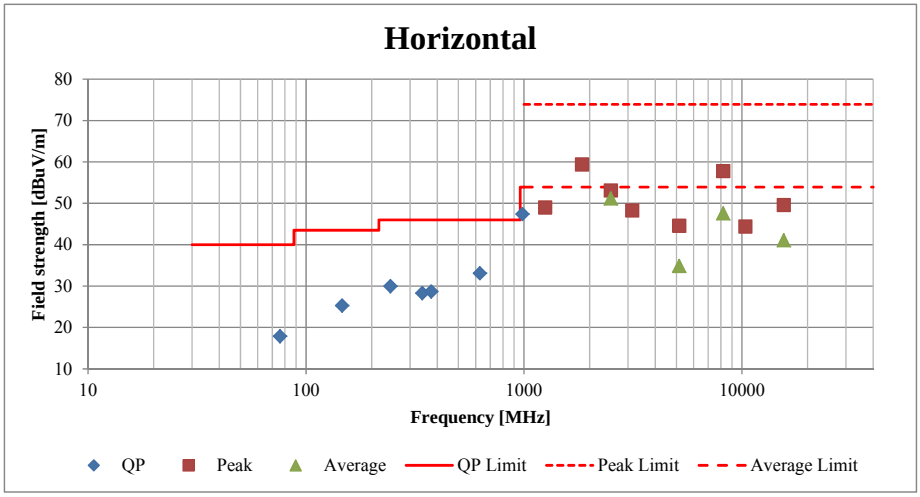
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

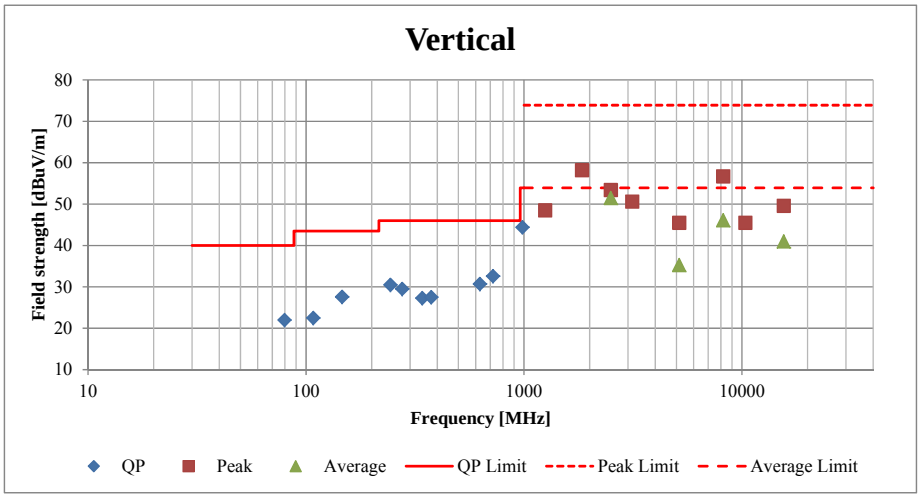
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission
(Plot data, Worst case)

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/09/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 34% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Tsubasa Takayama (Below 1GHz)
Mode	11a Tx 5180MHz		





Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5260MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.977	PK	57.4	24.7	1.8	34.6	49.3	68.2	18.9	Outside	
Hori	1844.522	PK	64.8	25.9	2.2	33.2	59.7	68.2	8.5	Outside	
Hori	2499.815	PK	56.3	26.9	2.5	32.7	53.0	73.9	20.9	Inside	
Hori	3132.242	PK	50.7	27.5	2.8	32.4	48.6	68.2	19.6	Outside	
Hori	8195.720	PK	48.6	37.1	4.8	32.9	57.6	73.9	16.3	Inside	
Hori	10480.000	PK	42.7	38.8	-2.1	33.6	45.8	68.2	22.4	Outside	Floor Noise
Hori	15720.000	PK	43.6	38.5	-0.9	32.2	49.0	73.9	24.9	Inside	Floor Noise
Hori	2499.815	AV	54.4	26.9	2.5	32.7	51.1	53.9	2.8	Inside	
Hori	8195.720	AV	37.8	37.1	4.8	32.9	46.8	53.9	7.1	Inside	
Hori	15720.000	AV	35.0	38.5	-0.9	32.2	40.4	53.9	13.5	Inside	Floor Noise
Vert	1249.931	PK	56.3	24.7	1.8	34.6	48.2	68.2	20.0	Outside	
Vert	1844.565	PK	67.4	25.9	2.2	33.2	62.3	68.2	5.9	Outside	
Vert	2499.735	PK	56.6	26.9	2.5	32.7	53.3	73.9	20.6	Inside	
Vert	3131.197	PK	52.4	27.5	2.8	32.4	50.3	68.2	17.9	Outside	
Vert	8200.070	PK	47.2	37.1	4.8	32.9	56.2	73.9	17.7	Inside	
Vert	10480.000	PK	41.8	38.8	-2.1	33.6	44.9	68.2	23.3	Outside	Floor Noise
Vert	15720.000	PK	43.6	38.5	-0.9	32.2	49.0	73.9	24.9	Inside	Floor Noise
Vert	2499.735	AV	54.7	26.9	2.5	32.7	51.4	53.9	2.5	Inside	
Vert	8200.070	AV	36.5	37.1	4.8	32.9	45.5	53.9	8.4	Inside	
Vert	15720.000	AV	34.7	38.5	-0.9	32.2	40.1	53.9	13.8	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5320MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.920	PK	57.5	24.7	1.8	34.6	49.4	68.2	18.8	Outside	
Hori	1844.315	PK	65.8	25.9	2.2	33.2	60.7	68.2	7.5	Outside	
Hori	2499.778	PK	56.4	26.9	2.5	32.7	53.1	73.9	20.8	Inside	
Hori	3132.224	PK	50.9	27.5	2.8	32.4	48.8	68.2	19.4	Outside	
Hori	5350.000	PK	43.3	31.6	3.8	31.7	47.0	68.2	21.2	Bandedge	
Hori	8196.231	PK	48.5	37.1	4.8	32.9	57.5	73.9	16.4	Inside	
Hori	10640.000	PK	43.1	38.7	-2.1	33.7	46.0	73.9	27.9	Inside	Floor Noise
Hori	15960.000	PK	43.2	37.8	-0.8	32.3	47.9	73.9	26.0	Inside	Floor Noise
Hori	2499.778	AV	54.5	26.9	2.5	32.7	51.2	53.9	2.7	Inside	
Hori	5350.000	AV	32.6	31.6	3.8	31.7	36.3	53.9	17.6	Bandedge	
Hori	8196.231	AV	38.1	37.1	4.8	32.9	47.1	53.9	6.8	Inside	
Hori	10640.000	AV	33.9	38.7	-2.1	33.7	36.8	53.9	17.1	Inside	Floor Noise
Hori	15960.000	AV	34.7	37.8	-0.8	32.3	39.4	53.9	14.5	Inside	Floor Noise
Vert	1249.886	PK	56.7	24.7	1.8	34.6	48.6	68.2	19.6	Outside	
Vert	1844.458	PK	67.7	25.9	2.2	33.2	62.6	68.2	5.6	Outside	
Vert	2499.778	PK	56.4	26.9	2.5	32.7	53.1	73.9	20.8	Inside	
Vert	3131.197	PK	52.1	27.5	2.8	32.4	50.0	68.2	18.2	Outside	
Vert	5350.000	PK	47.3	31.6	3.8	31.7	51.0	68.2	17.2	Bandedge	
Vert	8194.641	PK	47.0	37.1	4.8	32.9	56.0	73.9	17.9	Inside	
Vert	10640.000	PK	42.4	38.7	-2.1	33.7	45.3	73.9	28.6	Inside	Floor Noise
Vert	15960.000	PK	44.1	37.8	-0.8	32.3	48.8	73.9	25.1	Inside	Floor Noise
Vert	2499.778	AV	54.6	26.9	2.5	32.7	51.3	53.9	2.6	Inside	
Vert	5350.000	AV	34.0	31.6	3.8	31.7	37.7	53.9	16.2	Bandedge	
Vert	8194.641	AV	36.6	37.1	4.8	32.9	45.6	53.9	8.3	Inside	
Vert	10640.000	AV	33.9	38.7	-2.1	33.7	36.8	53.9	17.1	Inside	Floor Noise
Vert	15960.000	AV	34.6	37.8	-0.8	32.3	39.3	53.9	14.6	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5180MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5150.000	PK	44.1	31.3	3.7	31.7	47.4	68.2	20.8	Bandedge	
Hori	5150.000	AV	32.2	31.3	3.7	31.7	35.5	53.9	18.4	Bandedge	
Vert	5150.000	PK	44.8	31.3	3.7	31.7	48.1	68.2	20.1	Bandedge	
Vert	5150.000	AV	32.5	31.3	3.7	31.7	35.8	53.9	18.1	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5320MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5350.000	PK	44.4	31.6	3.8	31.7	48.1	68.2	20.1	Bandedge	
Hori	5350.000	AV	32.6	31.6	3.8	31.7	36.3	53.9	17.6	Bandedge	
Vert	5350.000	PK	46.5	31.6	3.8	31.7	50.2	68.2	18.0	Bandedge	
Vert	5350.000	AV	33.9	31.6	3.8	31.7	37.6	53.9	16.3	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5500MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.963	PK	57.6	24.7	1.8	34.6	49.5	68.2	18.7	Outside	
Hori	1844.440	PK	65.2	25.9	2.2	33.2	60.1	68.2	8.1	Outside	
Hori	2499.798	PK	56.1	26.9	2.5	32.7	52.8	73.9	21.1	Inside	
Hori	3132.378	PK	51.0	27.5	2.8	32.4	48.9	68.2	19.3	Outside	
Hori	5470.000	PK	44.5	31.8	3.8	31.8	48.3	73.9	25.6	Bandedge	
Hori	8191.681	PK	48.6	37.1	4.8	32.9	57.6	73.9	16.3	Inside	
Hori	11000.000	PK	41.9	38.8	-2.0	33.7	45.0	73.9	28.9	Inside	Floor Noise
Hori	16500.000	PK	43.8	38.9	-0.5	32.2	50.0	68.2	18.2	Outside	Floor Noise
Hori	2499.798	AV	54.0	26.9	2.5	32.7	50.7	53.9	3.2	Inside	
Hori	5470.000	AV	32.1	31.8	3.8	31.8	35.9	53.9	18.0	Bandedge	
Hori	8191.681	AV	38.3	37.1	4.8	32.9	47.3	53.9	6.6	Inside	
Hori	11000.000	AV	33.5	38.8	-2.0	33.7	36.6	53.9	17.3	Inside	Floor Noise
Vert	1249.975	PK	56.3	24.7	1.8	34.6	48.2	68.2	20.0	Outside	
Vert	1844.541	PK	67.1	25.9	2.2	33.2	62.0	68.2	6.2	Outside	
Vert	2499.771	PK	56.5	26.9	2.5	32.7	53.2	73.9	20.7	Inside	
Vert	3132.305	PK	52.3	27.5	2.8	32.4	50.2	68.2	18.0	Outside	
Vert	5470.000	PK	46.0	31.8	3.8	31.8	49.8	73.9	24.1	Bandedge	
Vert	8196.193	PK	48.0	37.1	4.8	32.9	57.0	73.9	16.9	Inside	
Vert	11000.000	PK	42.6	38.8	-2.0	33.7	45.7	73.9	28.2	Inside	Floor Noise
Vert	16500.000	PK	43.1	38.9	-0.5	32.2	49.3	68.2	18.9	Outside	Floor Noise
Vert	2499.771	AV	54.6	26.9	2.5	32.7	51.3	53.9	2.6	Inside	
Vert	5470.000	AV	32.9	31.8	3.8	31.8	36.7	53.9	17.2	Bandedge	
Vert	8196.193	AV	38.1	37.1	4.8	32.9	47.1	53.9	6.8	Inside	
Vert	11000.000	AV	33.6	38.8	-2.0	33.7	36.7	53.9	17.2	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5580MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.852	PK	57.7	24.7	1.8	34.6	49.6	68.2	18.6	Outside	
Hori	1844.399	PK	65.3	25.9	2.2	33.2	60.2	68.2	8.0	Outside	
Hori	2499.795	PK	56.2	26.9	2.5	32.7	52.9	73.9	21.0	Inside	
Hori	3132.416	PK	51.0	27.5	2.8	32.4	48.9	68.2	19.3	Outside	
Hori	8191.332	PK	48.5	37.1	4.8	32.9	57.5	73.9	16.4	Inside	
Hori	11160.000	PK	42.3	39.0	-1.8	33.7	45.8	73.9	28.1	Inside	Floor Noise
Hori	16740.000	PK	43.3	39.5	-0.4	32.2	50.2	68.2	18.0	Outside	Floor Noise
Hori	2499.795	AV	54.2	26.9	2.5	32.7	50.9	53.9	3.0	Inside	
Hori	8191.332	AV	38.0	37.1	4.8	32.9	47.0	53.9	6.9	Inside	
Hori	11160.000	AV	33.5	39.0	-1.8	33.7	37.0	53.9	16.9	Inside	Floor Noise
Vert	1249.811	PK	56.4	24.7	1.8	34.6	48.3	68.2	19.9	Outside	
Vert	1844.556	PK	67.2	25.9	2.2	33.2	62.1	68.2	6.1	Outside	
Vert	2499.770	PK	56.6	26.9	2.5	32.7	53.3	73.9	20.6	Inside	
Vert	3132.356	PK	53.0	27.5	2.8	32.4	50.9	68.2	17.3	Outside	
Vert	8196.211	PK	48.2	37.1	4.8	32.9	57.2	73.9	16.7	Inside	
Vert	11160.000	PK	42.3	39.0	-1.8	33.7	45.8	73.9	28.1	Inside	Floor Noise
Vert	16740.000	PK	43.3	39.5	-0.4	32.2	50.2	68.2	18.0	Outside	Floor Noise
Vert	2499.770	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Vert	8196.211	AV	38.2	37.1	4.8	32.9	47.2	53.9	6.7	Inside	
Vert	11160.000	AV	33.6	39.0	-1.8	33.7	37.1	53.9	16.8	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5700MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.777	PK	57.2	24.7	1.8	34.6	49.1	68.2	19.1	Outside	
Hori	1844.401	PK	65.2	25.9	2.2	33.2	60.1	68.2	8.1	Outside	
Hori	2499.780	PK	56.3	26.9	2.5	32.7	53.0	73.9	20.9	Inside	
Hori	3132.428	PK	51.1	27.5	2.8	32.4	49.0	68.2	19.2	Outside	
Hori	5725.000	PK	48.4	32.1	3.9	31.8	52.6	73.9	21.3	Bandedge	
Hori	8191.333	PK	48.9	37.1	4.8	32.9	57.9	73.9	16.0	Inside	
Hori	11400.000	PK	42.5	39.4	-1.7	33.6	46.6	73.9	27.3	Inside	Floor Noise
Hori	17100.000	PK	44.9	41.0	-0.2	32.2	53.5	68.2	14.7	Outside	Floor Noise
Hori	2499.780	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Hori	5725.000	AV	32.4	32.1	3.9	31.8	36.6	53.9	17.3	Bandedge	
Hori	8191.333	AV	38.3	37.1	4.8	32.9	47.3	53.9	6.6	Inside	
Hori	11400.000	AV	33.2	39.4	-1.7	33.6	37.3	53.9	16.6	Inside	Floor Noise
Vert	1249.790	PK	56.6	24.7	1.8	34.6	48.5	68.2	19.7	Outside	
Vert	1844.502	PK	67.2	25.9	2.2	33.2	62.1	68.2	6.1	Outside	
Vert	2499.769	PK	56.6	26.9	2.5	32.7	53.3	73.9	20.6	Inside	
Vert	3132.366	PK	53.2	27.5	2.8	32.4	51.1	68.2	17.1	Outside	
Vert	5725.000	PK	49.7	32.1	3.9	31.8	53.9	73.9	20.0	Bandedge	
Vert	8196.299	PK	48.4	37.1	4.8	32.9	57.4	73.9	16.5	Inside	
Vert	11400.000	PK	42.4	39.4	-1.7	33.6	46.5	73.9	27.4	Inside	Floor Noise
Vert	17100.000	PK	44.3	41.0	-0.2	32.2	52.9	68.2	15.3	Outside	Floor Noise
Vert	2499.769	AV	54.2	26.9	2.5	32.7	50.9	53.9	3.0	Inside	
Vert	5725.000	AV	32.7	32.1	3.9	31.8	36.9	53.9	17.0	Bandedge	
Vert	8196.299	AV	38.1	37.1	4.8	32.9	47.1	53.9	6.8	Inside	
Vert	11400.000	AV	33.3	39.4	-1.7	33.6	37.4	53.9	16.5	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5500MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5470.000	PK	44.5	31.8	3.8	31.8	48.3	73.9	25.6	Bandedge	
Hori	5470.000	AV	32.2	31.8	3.8	31.8	36.0	53.9	17.9	Bandedge	
Vert	5470.000	PK	45.5	31.8	3.8	31.8	49.3	73.9	24.6	Bandedge	
Vert	5470.000	AV	32.9	31.8	3.8	31.8	36.7	53.9	17.2	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5700MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5725.000	PK	47.3	32.1	3.9	31.8	51.5	73.9	22.4	Bandedge	
Hori	5725.000	AV	32.8	32.1	3.9	31.8	37.0	53.9	16.9	Bandedge	
Vert	5725.000	PK	48.0	32.1	3.9	31.8	52.2	73.9	21.7	Bandedge	
Vert	5725.000	AV	33.0	32.1	3.9	31.8	37.2	53.9	16.7	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5745MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.844	PK	57.5	24.7	1.8	34.6	49.4	68.2	18.8	Outside	
Hori	1844.510	PK	65.3	25.9	2.2	33.2	60.2	68.2	8.0	Outside	
Hori	2499.812	PK	56.4	26.9	2.5	32.7	53.1	73.9	20.8	Inside	
Hori	3132.244	PK	51.3	27.5	2.8	32.4	49.2	68.2	19.0	Outside	
Hori	5725.000	PK	47.8	32.1	3.9	31.8	52.0	73.9	21.9	Bandedge	
Hori	8195.699	PK	48.2	37.1	4.8	32.9	57.2	73.9	16.7	Inside	
Hori	11490.000	PK	43.3	39.6	-1.7	33.6	47.6	73.9	26.3	Inside	Floor Noise
Hori	17235.000	PK	45.3	42.1	0.0	32.2	55.2	68.2	13.0	Outside	Floor Noise
Hori	2499.812	AV	54.2	26.9	2.5	32.7	50.9	53.9	3.0	Inside	
Hori	5725.000	AV	32.6	32.1	3.9	31.8	36.8	53.9	17.1	Bandedge	
Hori	8195.699	AV	38.2	37.1	4.8	32.9	47.2	53.9	6.7	Inside	
Hori	11490.000	AV	33.5	39.6	-1.7	33.6	37.8	53.9	16.1	Inside	Floor Noise
Vert	1249.933	PK	56.5	24.7	1.8	34.6	48.4	68.2	19.8	Outside	
Vert	1844.555	PK	67.0	25.9	2.2	33.2	61.9	68.2	6.3	Outside	
Vert	2499.731	PK	56.5	26.9	2.5	32.7	53.2	73.9	20.7	Inside	
Vert	3132.193	PK	53.3	27.5	2.8	32.4	51.2	68.2	17.0	Outside	
Vert	5725.000	PK	51.2	32.1	3.9	31.8	55.4	73.9	18.5	Bandedge	
Vert	8196.313	PK	48.5	37.1	4.8	32.9	57.5	73.9	16.4	Inside	
Vert	11490.000	PK	42.0	39.6	-1.7	33.6	46.3	73.9	27.6	Inside	Floor Noise
Vert	17235.000	PK	44.5	42.1	0.0	32.2	54.4	68.2	13.8	Outside	Floor Noise
Vert	2499.731	AV	54.0	26.9	2.5	32.7	50.7	53.9	3.2	Inside	
Vert	5725.000	AV	33.9	32.1	3.9	31.8	38.1	53.9	15.8	Bandedge	
Vert	8196.313	AV	38.0	37.1	4.8	32.9	47.0	53.9	6.9	Inside	
Vert	11490.000	AV	33.4	39.6	-1.7	33.6	37.7	53.9	16.2	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5785MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.976	PK	57.2	24.7	1.8	34.6	49.1	68.2	19.1	Outside	
Hori	1844.442	PK	64.7	25.9	2.2	33.2	59.6	68.2	8.6	Outside	
Hori	2499.931	PK	56.1	26.9	2.5	32.7	52.8	73.9	21.1	Inside	
Hori	3132.331	PK	50.5	27.5	2.8	32.4	48.4	68.2	19.8	Outside	
Hori	8195.123	PK	48.7	37.1	4.8	32.9	57.7	73.9	16.2	Inside	
Hori	11570.000	PK	42.6	39.6	-1.5	33.6	47.1	73.9	26.8	Inside	Floor Noise
Hori	17355.000	PK	43.8	43.0	0.0	32.2	54.6	68.2	13.6	Outside	Floor Noise
Hori	2499.931	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Hori	8195.123	AV	38.5	37.1	4.8	32.9	47.5	53.9	6.4	Inside	
Hori	11570.000	AV	33.6	39.6	-1.5	33.6	38.1	53.9	15.8	Inside	Floor Noise
Vert	1249.877	PK	56.6	24.7	1.8	34.6	48.5	68.2	19.7	Outside	
Vert	1844.331	PK	65.0	25.9	2.2	33.2	59.9	68.2	8.3	Outside	
Vert	2499.932	PK	56.8	26.9	2.5	32.7	53.5	73.9	20.4	Inside	
Vert	3132.347	PK	52.6	27.5	2.8	32.4	50.5	68.2	17.7	Outside	
Vert	8195.902	PK	47.9	37.1	4.8	32.9	56.9	73.9	17.0	Inside	
Vert	11570.000	PK	41.5	39.6	-1.5	33.6	46.0	73.9	27.9	Inside	Floor Noise
Vert	17355.000	PK	44.2	43.0	0.0	32.2	55.0	68.2	13.2	Outside	Floor Noise
Vert	2499.932	AV	54.8	26.9	2.5	32.7	51.5	53.9	2.4	Inside	
Vert	8195.902	AV	37.3	37.1	4.8	32.9	46.3	53.9	7.6	Inside	
Vert	11570.000	AV	33.4	39.6	-1.5	33.6	37.9	53.9	16.0	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/03/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 40% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Takafumi Noguchi (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11a Tx 5825MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1249.955	PK	57.4	24.7	1.8	34.6	49.3	68.2	18.9	Outside	
Hori	1844.321	PK	65.6	25.9	2.2	33.2	60.5	68.2	7.7	Outside	
Hori	2499.794	PK	56.4	26.9	2.5	32.7	53.1	73.9	20.8	Inside	
Hori	3132.222	PK	50.8	27.5	2.8	32.4	48.7	68.2	19.5	Outside	
Hori	5850.000	PK	45.7	32.2	4.0	31.8	50.1	73.9	23.8	Bandedge	
Hori	8196.229	PK	48.6	37.1	4.8	32.9	57.6	73.9	16.3	Inside	
Hori	11650.000	PK	43.2	39.6	-1.5	33.5	47.8	73.9	26.1	Inside	Floor Noise
Hori	17475.000	PK	45.6	44.0	0.0	32.2	57.4	68.2	10.8	Outside	Floor Noise
Hori	2499.794	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Hori	5850.000	AV	31.6	32.2	4.0	31.8	36.0	53.9	17.9	Bandedge	
Hori	8196.229	AV	38.4	37.1	4.8	32.9	47.4	53.9	6.5	Inside	
Hori	11650.000	AV	33.8	39.6	-1.5	33.5	38.4	53.9	15.5	Inside	Floor Noise
Vert	1249.889	PK	56.7	24.7	1.8	34.6	48.6	68.2	19.6	Outside	
Vert	1844.456	PK	67.5	25.9	2.2	33.2	62.4	68.2	5.8	Outside	
Vert	2499.794	PK	56.7	26.9	2.5	32.7	53.4	73.9	20.5	Inside	
Vert	3132.196	PK	52.2	27.5	2.8	32.4	50.1	68.2	18.1	Outside	
Vert	5850.000	PK	45.8	32.2	4.0	31.8	50.2	73.9	23.7	Bandedge	
Vert	8194.658	PK	46.9	37.1	4.8	32.9	55.9	73.9	18.0	Inside	
Vert	11650.000	PK	43.4	39.6	-1.5	33.5	48.0	73.9	25.9	Inside	Floor Noise
Vert	17475.000	PK	46.2	44.0	0.0	32.2	58.0	68.2	10.2	Outside	Floor Noise
Vert	2499.794	AV	54.7	26.9	2.5	32.7	51.4	53.9	2.5	Inside	
Vert	5850.000	AV	31.9	32.2	4.0	31.8	36.3	53.9	17.6	Bandedge	
Vert	8194.658	AV	36.7	37.1	4.8	32.9	45.7	53.9	8.2	Inside	
Vert	11650.000	AV	33.8	39.6	-1.5	33.5	38.4	53.9	15.5	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5745MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5725.000	PK	51.3	32.1	3.9	31.8	55.5	73.9	18.4	Bandedge	
Hori	5725.000	AV	34.0	32.1	3.9	31.8	38.2	53.9	15.7	Bandedge	
Vert	5725.000	PK	53.0	32.1	3.9	31.8	57.2	73.9	16.7	Bandedge	
Vert	5725.000	AV	34.6	32.1	3.9	31.8	38.8	53.9	15.1	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi (1-10GHz)
Mode	11n-20 Tx 5825MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5850.000	PK	45.9	32.2	4.0	31.8	50.3	73.9	23.6	Bandedge	
Hori	5850.000	AV	32.0	32.2	4.0	31.8	36.4	53.9	17.5	Bandedge	
Vert	5850.000	PK	45.8	32.2	4.0	31.8	50.2	73.9	23.7	Bandedge	
Vert	5850.000	AV	32.2	32.2	4.0	31.8	36.6	53.9	17.3	Bandedge	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber			
Report No.	10607274H			
Date	03/04/2015	03/05/2015	03/05/2015	03/09/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH	23deg. C / 34% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)	Tsubasa Takayama (Below 1GHz)
Mode	11n-40 Tx 5190MHz			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	77.690	QP	36.0	6.3	7.8	32.1	18.0	40.0	22.0	Outside	
Hori	146.253	QP	34.0	14.7	8.6	32.1	25.2	43.5	18.3	Outside	
Hori	243.749	QP	35.4	17.1	9.4	32.0	29.9	46.0	16.1	Inside	
Hori	341.243	QP	34.2	16.0	10.2	31.9	28.5	46.0	17.5	Outside	
Hori	374.976	QP	33.3	16.9	10.4	31.9	28.7	46.0	17.3	Outside	
Hori	627.167	QP	33.3	19.7	12.0	32.0	33.0	46.0	13.0	Outside	
Hori	983.016	QP	40.8	23.3	13.6	30.5	47.2	53.9	6.7	Inside	
Hori	1249.998	PK	57.9	24.7	1.8	34.6	49.8	68.2	18.4	Outside	
Hori	1838.050	PK	62.1	25.9	2.2	33.3	56.9	68.2	11.3	Outside	
Hori	2499.892	PK	57.5	26.9	2.5	32.7	54.2	73.9	19.7	Inside	
Hori	3132.351	PK	49.5	27.5	2.8	32.4	47.4	68.2	20.8	Outside	
Hori	5150.000	PK	43.2	31.3	3.7	31.7	46.5	68.2	21.7	Bandedge	
Hori	8195.533	PK	49.3	37.1	4.8	32.9	58.3	73.9	15.6	Inside	
Hori	10380.000	PK	41.5	38.8	-2.1	33.6	44.6	68.2	23.6	Outside	
Hori	15570.000	PK	43.7	39.0	-0.9	32.1	49.7	73.9	24.2	Inside	
Hori	2499.892	AV	55.8	26.9	2.5	32.7	52.5	53.9	1.4	Inside	
Hori	5150.000	AV	32.3	31.3	3.7	31.7	35.6	53.9	18.3	Bandedge	
Hori	8195.533	AV	37.8	37.1	4.8	32.9	46.8	53.9	7.1	Inside	
Hori	15570.000	AV	35.0	39.0	-0.9	32.1	41.0	53.9	12.9	Inside	
Vert	78.481	QP	40.6	6.3	7.8	32.1	22.6	40.0	17.4	Outside	
Vert	108.000	QP	35.0	11.3	8.1	32.1	22.3	43.5	21.2	Inside	
Vert	146.253	QP	36.5	14.7	8.6	32.1	27.7	43.5	15.8	Outside	
Vert	243.749	QP	36.2	17.1	9.4	32.0	30.7	46.0	15.3	Inside	
Vert	276.000	QP	33.0	18.6	9.8	31.9	29.5	46.0	16.5	Inside	
Vert	341.263	QP	32.4	16.0	10.2	31.9	26.7	46.0	19.3	Outside	
Vert	375.000	QP	32.0	16.9	10.4	31.9	27.4	46.0	18.6	Outside	
Vert	627.177	QP	31.2	19.7	12.0	32.0	30.9	46.0	15.1	Outside	
Vert	719.949	QP	31.0	20.8	12.4	31.9	32.3	46.0	13.7	Outside	
Vert	983.016	QP	38.1	23.3	13.6	30.5	44.5	53.9	9.4	Inside	
Vert	1250.000	PK	54.7	24.7	1.8	34.6	46.6	68.2	21.6	Outside	
Vert	1838.050	PK	65.1	25.9	2.2	33.3	59.9	68.2	8.3	Outside	
Vert	2499.892	PK	56.2	26.9	2.5	32.7	52.9	73.9	21.0	Inside	
Vert	3132.351	PK	53.9	27.5	2.8	32.4	51.8	68.2	16.4	Outside	
Vert	5150.000	PK	45.6	31.3	3.7	31.7	48.9	68.2	19.3	Bandedge	
Vert	8195.533	PK	47.6	37.1	4.8	32.9	56.6	73.9	17.3	Inside	
Vert	10380.000	PK	42.0	38.8	-2.1	33.6	45.1	68.2	23.1	Outside	
Vert	15570.000	PK	43.8	39.0	-0.9	32.1	49.8	73.9	24.1	Inside	
Vert	2499.892	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Vert	5150.000	AV	32.3	31.3	3.7	31.7	35.6	53.9	18.3	Bandedge	
Vert	8195.533	AV	37.1	37.1	4.8	32.9	46.1	53.9	7.8	Inside	
Vert	15570.000	AV	35.1	39.0	-0.9	32.1	41.1	53.9	12.8	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

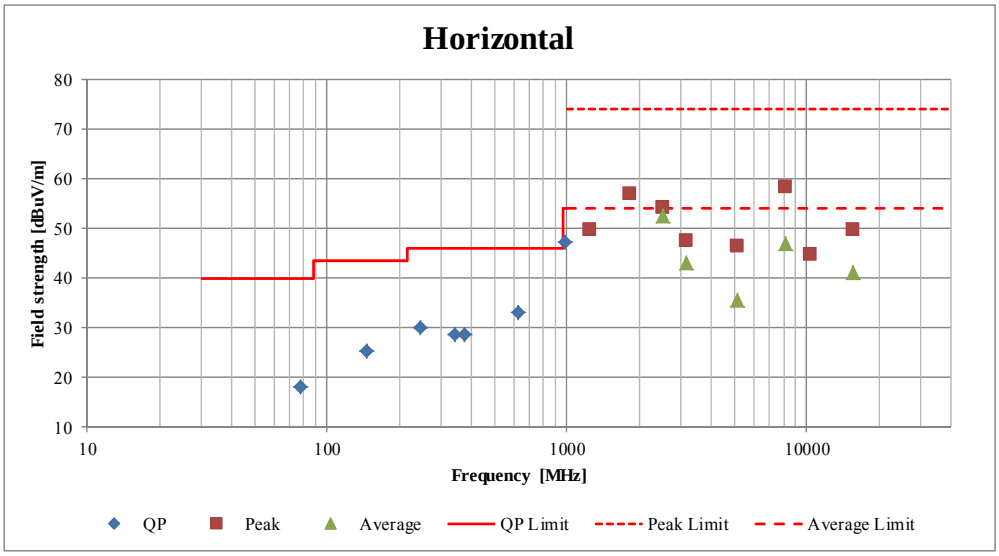
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

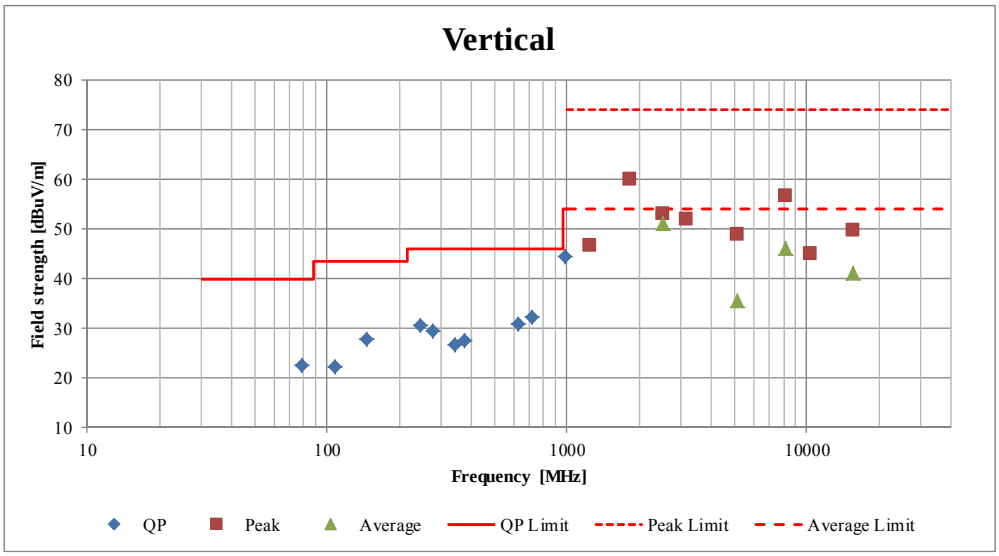
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission
(Plot data, Worst case)

Test place	Ise EMC Lab. No.3 Anechoic Chamber			
Report No.	10607274H			
Date	03/04/2015	03/05/2015	03/05/2015	03/09/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH	23deg. C / 34% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)	Tsubasa Takayama (Below 1GHz)
Mode	11n-40 Tx 5190MHz			





Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5270MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	57.7	24.7	1.8	34.6	49.6	68.2	18.6	Outside	
Hori	1838.050	PK	62.9	25.9	2.2	33.3	57.7	68.2	10.5	Outside	
Hori	2499.892	PK	57.3	26.9	2.5	32.7	54.0	73.9	19.9	Inside	
Hori	3132.351	PK	48.6	27.5	2.8	32.4	46.5	68.2	21.7	Outside	
Hori	8195.533	PK	48.8	37.1	4.8	32.9	57.8	73.9	16.1	Inside	
Hori	10540.000	PK	42.5	38.7	-2.1	33.6	45.5	68.2	22.7	Outside	Floor Noise
Hori	15810.000	PK	43.6	38.3	-0.9	32.2	48.8	73.9	25.1	Inside	Floor Noise
Hori	2499.892	AV	55.5	26.9	2.5	32.7	52.2	53.9	1.7	Inside	
Hori	8195.533	AV	37.1	37.1	4.8	32.9	46.1	53.9	7.8	Inside	
Hori	15810.000	AV	34.6	38.3	-0.9	32.2	39.8	53.9	14.1	Inside	Floor Noise
Vert	1250.000	PK	54.9	24.7	1.8	34.6	46.8	68.2	21.4	Outside	
Vert	1838.050	PK	65.5	25.9	2.2	33.3	60.3	68.2	7.9	Outside	
Vert	2499.892	PK	56.5	26.9	2.5	32.7	53.2	73.9	20.7	Inside	
Vert	3132.351	PK	54.4	27.5	2.8	32.4	52.3	68.2	15.9	Outside	
Vert	8195.533	PK	48.2	37.1	4.8	32.9	57.2	73.9	16.7	Inside	
Vert	10540.000	PK	43.0	38.7	-2.1	33.6	46.0	68.2	22.2	Outside	Floor Noise
Vert	15810.000	PK	43.5	38.3	-0.9	32.2	48.7	73.9	25.2	Inside	Floor Noise
Vert	2499.892	AV	54.1	26.9	2.5	32.7	50.8	53.9	3.1	Inside	
Vert	8195.533	AV	37.3	37.1	4.8	32.9	46.3	53.9	7.6	Inside	
Vert	15810.000	AV	34.6	38.3	-0.9	32.2	39.8	53.9	14.1	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5310MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	57.6	24.7	1.8	34.6	49.5	68.2	18.7	Outside	
Hori	1838.050	PK	63.2	25.9	2.2	33.3	58.0	68.2	10.2	Outside	
Hori	2499.892	PK	56.7	26.9	2.5	32.7	53.4	73.9	20.5	Inside	
Hori	3132.351	PK	50.3	27.5	2.8	32.4	48.2	68.2	20.0	Outside	
Hori	5350.000	PK	46.0	31.6	3.8	31.7	49.7	68.2	18.5	Bandedge	
Hori	8195.533	PK	48.3	37.1	4.8	32.9	57.3	73.9	16.6	Inside	
Hori	10620.000	PK	42.3	38.7	-2.1	33.7	45.2	73.9	28.7	Inside	Floor Noise
Hori	15930.000	PK	44.3	37.9	-0.8	32.3	49.1	73.9	24.8	Inside	Floor Noise
Hori	2499.892	AV	55.2	26.9	2.5	32.7	51.9	53.9	2.0	Inside	
Hori	5350.000	AV	33.5	31.6	3.8	31.7	37.2	53.9	16.7	Bandedge	
Hori	8195.533	AV	36.5	37.1	4.8	32.9	45.5	53.9	8.4	Inside	
Hori	10620.000	AV	33.8	38.7	-2.1	33.7	36.7	53.9	17.2	Inside	Floor Noise
Hori	15930.000	AV	34.7	37.9	-0.8	32.3	39.5	53.9	14.4	Inside	Floor Noise
Vert	1250.000	PK	55.1	24.7	1.8	34.6	47.0	68.2	21.2	Outside	
Vert	1838.050	PK	65.7	25.9	2.2	33.3	60.5	68.2	7.7	Outside	
Vert	2499.892	PK	55.6	26.9	2.5	32.7	52.3	73.9	21.6	Inside	
Vert	3132.351	PK	55.1	27.5	2.8	32.4	53.0	68.2	15.2	Outside	
Vert	5350.000	PK	47.6	31.6	3.8	31.7	51.3	68.2	16.9	Bandedge	
Vert	8195.533	PK	47.7	37.1	4.8	32.9	56.7	73.9	17.2	Inside	
Vert	10620.000	PK	42.3	38.7	-2.1	33.7	45.2	73.9	28.7	Inside	Floor Noise
Vert	15930.000	PK	44.2	37.9	-0.8	32.3	49.0	73.9	24.9	Inside	Floor Noise
Vert	2499.892	AV	54.2	26.9	2.5	32.7	50.9	53.9	3.0	Inside	
Vert	5350.000	AV	33.0	31.6	3.8	31.7	36.7	53.9	17.2	Bandedge	
Vert	8195.533	AV	38.1	37.1	4.8	32.9	47.1	53.9	6.8	Inside	
Vert	10620.000	AV	33.7	38.7	-2.1	33.7	36.6	53.9	17.3	Inside	Floor Noise
Vert	15930.000	AV	34.8	37.9	-0.8	32.3	39.6	53.9	14.3	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5510MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	58.0	24.7	1.8	34.6	49.9	68.2	18.3	Outside	
Hori	1838.050	PK	62.6	25.9	2.2	33.3	57.4	68.2	10.8	Outside	
Hori	2499.892	PK	56.5	26.9	2.5	32.7	53.2	73.9	20.7	Inside	
Hori	3132.351	PK	49.2	27.5	2.8	32.4	47.1	68.2	21.1	Outside	
Hori	5470.000	PK	44.1	31.8	3.8	31.8	47.9	73.9	26.0	Bandedge	
Hori	8195.533	PK	49.1	37.1	4.8	32.9	58.1	73.9	15.8	Inside	
Hori	11020.000	PK	42.1	38.8	-2.0	33.7	45.2	73.9	28.7	Inside	Floor Noise
Hori	16530.000	PK	43.2	39.0	-0.5	32.2	49.5	68.2	18.7	Outside	Floor Noise
Hori	2499.892	AV	55.1	26.9	2.5	32.7	51.8	53.9	2.1	Inside	
Hori	5470.000	AV	33.1	31.8	3.8	31.8	36.9	53.9	17.0	Bandedge	
Hori	8195.533	AV	38.3	37.1	4.8	32.9	47.3	53.9	6.6	Inside	
Hori	11020.000	AV	33.6	38.8	-2.0	33.7	36.7	53.9	17.2	Inside	Floor Noise
Vert	1250.000	PK	56.1	24.7	1.8	34.6	48.0	68.2	20.2	Outside	
Vert	1838.050	PK	63.9	25.9	2.2	33.3	58.7	68.2	9.5	Outside	
Vert	2499.892	PK	55.9	26.9	2.5	32.7	52.6	73.9	21.3	Inside	
Vert	3132.351	PK	54.5	27.5	2.8	32.4	52.4	68.2	15.8	Outside	
Vert	5470.000	PK	44.9	31.8	3.8	31.8	48.7	73.9	25.2	Bandedge	
Vert	8195.533	PK	48.1	37.1	4.8	32.9	57.1	73.9	16.8	Inside	
Vert	11020.000	PK	42.2	38.8	-2.0	33.7	45.3	73.9	28.6	Inside	Floor Noise
Vert	16530.000	PK	44.4	39.0	-0.5	32.2	50.7	68.2	17.5	Outside	Floor Noise
Vert	2499.892	AV	54.7	26.9	2.5	32.7	51.4	53.9	2.5	Inside	
Vert	5470.000	AV	32.6	31.8	3.8	31.8	36.4	53.9	17.5	Bandedge	
Vert	8195.533	AV	37.7	37.1	4.8	32.9	46.7	53.9	7.2	Inside	
Vert	11020.000	AV	33.7	38.8	-2.0	33.7	36.8	53.9	17.1	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5550MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	57.7	24.7	1.8	34.6	49.6	68.2	18.6	Outside	
Hori	1838.050	PK	61.8	25.9	2.2	33.3	56.6	68.2	11.6	Outside	
Hori	2499.892	PK	57.0	26.9	2.5	32.7	53.7	73.9	20.2	Inside	
Hori	3132.351	PK	48.3	27.5	2.8	32.4	46.2	68.2	22.0	Outside	
Hori	8195.533	PK	48.8	37.1	4.8	32.9	57.8	73.9	16.1	Inside	
Hori	11100.000	PK	44.3	38.9	-1.8	33.7	47.7	73.9	26.2	Inside	Floor Noise
Hori	16650.000	PK	45.6	39.3	-0.5	32.2	52.2	68.2	16.0	Outside	Floor Noise
Hori	2499.892	AV	54.1	26.9	2.5	32.7	50.8	53.9	3.1	Inside	
Hori	8195.533	AV	37.2	37.1	4.8	32.9	46.2	53.9	7.7	Inside	
Hori	11100.000	AV	33.5	38.9	-1.8	33.7	36.9	53.9	17.0	Inside	Floor Noise
Vert	1250.000	PK	56.5	24.7	1.8	34.6	48.4	68.2	19.8	Outside	
Vert	1838.050	PK	62.9	25.9	2.2	33.3	57.7	68.2	10.5	Outside	
Vert	2499.892	PK	56.2	26.9	2.5	32.7	52.9	73.9	21.0	Inside	
Vert	3132.351	PK	53.3	27.5	2.8	32.4	51.2	68.2	17.0	Outside	
Vert	8195.533	PK	47.9	37.1	4.8	32.9	56.9	73.9	17.0	Inside	
Vert	11100.000	PK	44.1	38.9	-1.8	33.7	47.5	73.9	26.4	Inside	Floor Noise
Vert	16650.000	PK	45.5	39.3	-0.5	32.2	52.1	68.2	16.1	Outside	Floor Noise
Vert	2499.892	AV	54.3	26.9	2.5	32.7	51.0	53.9	2.9	Inside	
Vert	8195.533	AV	37.1	37.1	4.8	32.9	46.1	53.9	7.8	Inside	
Vert	11100.000	AV	33.5	38.9	-1.8	33.7	36.9	53.9	17.0	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5670MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	56.8	24.7	1.8	34.6	48.7	68.2	19.5	Outside	
Hori	1838.050	PK	63.5	25.9	2.2	33.3	58.3	68.2	9.9	Outside	
Hori	2499.892	PK	57.1	26.9	2.5	32.7	53.8	73.9	20.1	Inside	
Hori	3132.351	PK	50.5	27.5	2.8	32.4	48.4	68.2	19.8	Outside	
Hori	5725.000	PK	41.4	32.1	3.9	31.8	45.6	73.9	28.3	Bandedge	
Hori	8195.533	PK	48.9	37.1	4.8	32.9	57.9	73.9	16.0	Inside	
Hori	11340.000	PK	42.5	39.3	-1.7	33.6	46.5	73.9	27.4	Inside	Floor Noise
Hori	17010.000	PK	43.7	40.2	-0.2	32.2	51.5	68.2	16.7	Outside	Floor Noise
Hori	2499.892	AV	54.5	26.9	2.5	32.7	51.2	53.9	2.7	Inside	
Hori	5725.000	AV	32.5	32.1	3.9	31.8	36.7	53.9	17.2	Bandedge	
Hori	8195.533	AV	36.7	37.1	4.8	32.9	45.7	53.9	8.2	Inside	
Hori	11340.000	AV	33.4	39.3	-1.7	33.6	37.4	53.9	16.5	Inside	Floor Noise
Vert	1250.000	PK	55.6	24.7	1.8	34.6	47.5	68.2	20.7	Outside	
Vert	1838.050	PK	64.7	25.9	2.2	33.3	59.5	68.2	8.7	Outside	
Vert	2499.892	PK	56.7	26.9	2.5	32.7	53.4	73.9	20.5	Inside	
Vert	3132.351	PK	53.3	27.5	2.8	32.4	51.2	68.2	17.0	Outside	
Vert	5725.000	PK	42.9	32.1	3.9	31.8	47.1	73.9	26.8	Bandedge	
Vert	8195.533	PK	48.5	37.1	4.8	32.9	57.5	73.9	16.4	Inside	
Vert	11340.000	PK	42.4	39.3	-1.7	33.6	46.4	73.9	27.5	Inside	Floor Noise
Vert	17010.000	PK	44.4	40.2	-0.2	32.2	52.2	68.2	16.0	Outside	Floor Noise
Vert	2499.892	AV	54.1	26.9	2.5	32.7	50.8	53.9	3.1	Inside	
Vert	5725.000	AV	32.6	32.1	3.9	31.8	36.8	53.9	17.1	Bandedge	
Vert	8195.533	AV	38.2	37.1	4.8	32.9	47.2	53.9	6.7	Inside	
Vert	11340.000	AV	33.5	39.3	-1.7	33.6	37.5	53.9	16.4	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5755MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	56.5	24.7	1.8	34.6	48.4	68.2	19.8	Outside	
Hori	1838.050	PK	64.1	25.9	2.2	33.3	58.9	68.2	9.3	Outside	
Hori	2499.892	PK	54.6	26.9	2.5	32.7	51.3	73.9	22.6	Inside	
Hori	3132.351	PK	51.6	27.5	2.8	32.4	49.5	68.2	18.7	Outside	
Hori	5725.000	PK	44.0	32.1	3.9	31.8	48.2	73.9	25.7	Bandedge	
Hori	8195.533	PK	48.3	37.1	4.8	32.9	57.3	73.9	16.6	Inside	
Hori	11510.000	PK	42.5	39.6	-1.6	33.6	46.9	73.9	27.0	Inside	Floor Noise
Hori	17265.000	PK	44.1	42.3	0.0	32.2	54.2	68.2	14.0	Outside	Floor Noise
Hori	2499.892	AV	51.2	26.9	2.5	32.7	47.9	53.9	6.0	Inside	
Hori	5725.000	AV	33.0	32.1	3.9	31.8	37.2	53.9	16.7	Bandedge	
Hori	8195.533	AV	36.5	37.1	4.8	32.9	45.5	53.9	8.4	Inside	
Hori	11510.000	AV	33.4	39.6	-1.6	33.6	37.8	53.9	16.1	Inside	Floor Noise
Vert	1250.000	PK	55.1	24.7	1.8	34.6	47.0	68.2	21.2	Outside	
Vert	1838.050	PK	63.7	25.9	2.2	33.3	58.5	68.2	9.7	Outside	
Vert	2499.892	PK	55.8	26.9	2.5	32.7	52.5	73.9	21.4	Inside	
Vert	3132.351	PK	53.9	27.5	2.8	32.4	51.8	68.2	16.4	Outside	
Vert	5725.000	PK	46.2	32.1	3.9	31.8	50.4	73.9	23.5	Bandedge	
Vert	8195.533	PK	47.5	37.1	4.8	32.9	56.5	73.9	17.4	Inside	
Vert	11510.000	PK	42.3	39.6	-1.6	33.6	46.7	73.9	27.2	Inside	Floor Noise
Vert	17265.000	PK	44.5	42.3	0.0	32.2	54.6	68.2	13.6	Outside	Floor Noise
Vert	2499.892	AV	50.3	26.9	2.5	32.7	47.0	53.9	6.9	Inside	
Vert	5725.000	AV	33.5	32.1	3.9	31.8	37.7	53.9	16.2	Bandedge	
Vert	8195.533	AV	37.3	37.1	4.8	32.9	46.3	53.9	7.6	Inside	
Vert	11510.000	AV	33.6	39.6	-1.6	33.6	38.0	53.9	15.9	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Anechoic Chamber		
Report No.	10607274H		
Date	03/04/2015	03/05/2015	03/05/2015
Temperature/ Humidity	23deg. C / 35% RH	25deg. C / 39% RH	23deg. C / 38% RH
Engineer	Koji Yamamoto (1-10GHz)	Tomoki Matsui (10-26.5GHz)	Takafumi Noguchi (Above26.5GHz)
Mode	11n-40 Tx 5795MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	1250.000	PK	56.3	24.7	1.8	34.6	48.2	68.2	20.0	Outside	
Hori	1838.050	PK	62.5	25.9	2.2	33.3	57.3	68.2	10.9	Outside	
Hori	2499.892	PK	55.3	26.9	2.5	32.7	52.0	73.9	21.9	Inside	
Hori	3132.351	PK	53.2	27.5	2.8	32.4	51.1	68.2	17.1	Outside	
Hori	5850.000	PK	41.4	32.2	4.0	31.8	45.8	73.9	28.1	Bandedge	
Hori	8195.533	PK	47.6	37.1	4.8	32.9	56.6	73.9	17.3	Inside	
Hori	11590.000	PK	42.5	39.6	-1.5	33.5	47.1	73.9	26.8	Inside	Floor Noise
Hori	17385.000	PK	43.3	43.3	0.0	32.2	54.4	68.2	13.8	Outside	Floor Noise
Hori	2499.892	AV	50.2	26.9	2.5	32.7	46.9	53.9	7.0	Inside	
Hori	5850.000	AV	32.2	32.2	4.0	31.8	36.6	53.9	17.3	Bandedge	
Hori	8195.533	AV	36.9	37.1	4.8	32.9	45.9	53.9	8.0	Inside	
Hori	11590.000	AV	33.7	39.6	-1.5	33.5	38.3	53.9	15.6	Inside	Floor Noise
Vert	1250.000	PK	55.7	24.7	1.8	34.6	47.6	68.2	20.6	Outside	
Vert	1838.050	PK	61.7	25.9	2.2	33.3	56.5	68.2	11.7	Outside	
Vert	2499.892	PK	55.5	26.9	2.5	32.7	52.2	73.9	21.7	Inside	
Vert	3132.351	PK	54.5	27.5	2.8	32.4	52.4	68.2	15.8	Outside	
Vert	5850.000	PK	43.7	32.2	4.0	31.8	48.1	73.9	25.8	Bandedge	
Vert	8195.533	PK	48.8	37.1	4.8	32.9	57.8	73.9	16.1	Inside	
Vert	11590.000	PK	42.5	39.6	-1.5	33.5	47.1	73.9	26.8	Inside	Floor Noise
Vert	17385.000	PK	43.4	43.3	0.0	32.2	54.5	68.2	13.7	Outside	Floor Noise
Vert	2499.892	AV	50.1	26.9	2.5	32.7	46.8	53.9	7.1	Inside	
Vert	5850.000	AV	32.3	32.2	4.0	31.8	36.7	53.9	17.2	Bandedge	
Vert	8195.533	AV	37.1	37.1	4.8	32.9	46.1	53.9	7.8	Inside	
Vert	11590.000	AV	33.5	39.6	-1.5	33.5	38.1	53.9	15.8	Inside	Floor Noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)

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

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No. 10607274H
Date 06/24/2015
Temperature/ Humidity 25 deg. C / 43% RH
Engineer Tsubasa Takayama
(30MHz-40GHz)
Mode 11n-20 Tx 2412MHz + 11a Tx 5180MHz Co location transmitting

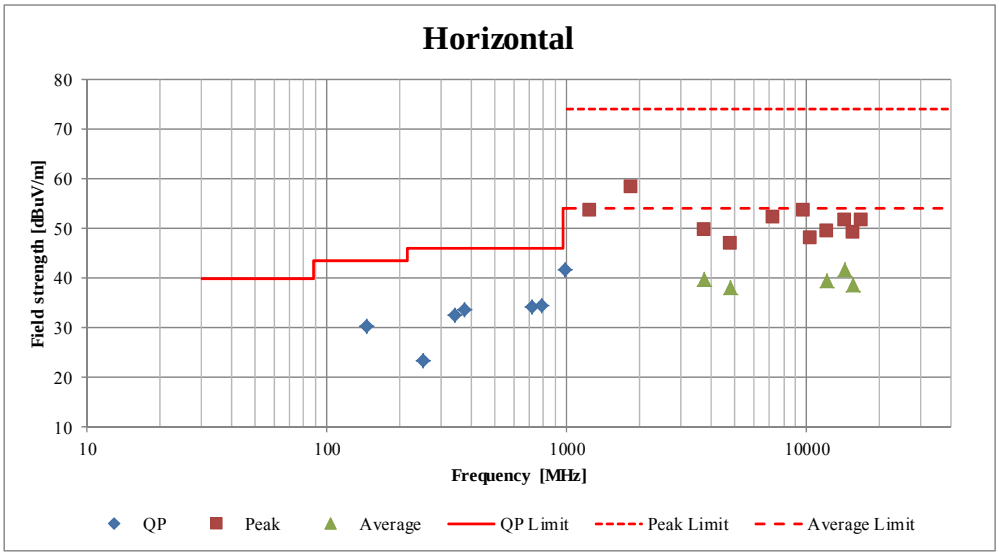
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	146.100	QP	35.8	14.7	7.8	28.1	30.2	43.5	13.3	Outside	
Hori	249.987	QP	25.3	17.2	8.5	27.6	23.4	46.0	22.6	Inside	
Hori	341.251	QP	35.2	15.9	9.1	27.8	32.4	46.0	13.6	Outside	
Hori	374.949	QP	35.4	16.9	9.3	28.1	33.5	46.0	12.5	Outside	
Hori	720.002	QP	30.5	20.9	10.7	28.0	34.1	46.0	11.9	Outside	
Hori	786.503	QP	29.4	21.7	11.0	27.7	34.4	46.0	11.6	Outside	
Hori	983.006	QP	33.7	23.4	11.6	27.1	41.6	53.9	12.3	Inside	
Hori	1249.982	PK	61.6	25.8	2.0	35.8	53.6	68.2	14.6	Outside	
Hori	1844.828	PK	62.6	28.5	2.4	35.2	58.3	68.2	9.9	Outside	
Hori	3750.349	PK	49.9	30.5	3.5	34.1	49.8	73.9	24.1	Inside	
Hori	4824.000	PK	44.5	32.7	4.0	34.2	47.0	73.9	26.9	Inside	Floor Noise
Hori	7236.000	PK	44.3	36.8	5.1	34.1	52.1	68.2	16.1	Outside	Floor Noise
Hori	9648.000	PK	43.5	38.9	6.0	34.7	53.7	68.2	14.5	Outside	Floor Noise
Hori	10360.000	PK	45.7	40.0	-3.3	34.4	48.0	68.2	20.2	Outside	Floor Noise
Hori	12060.000	PK	45.3	40.3	-2.7	33.5	49.4	73.9	24.5	Inside	Floor Noise
Hori	14472.000	PK	45.3	41.6	-2.4	32.8	51.7	73.9	22.2	Inside	Floor Noise
Hori	15540.000	PK	45.1	39.6	-2.1	33.5	49.1	73.9	24.8	Inside	Floor Noise
Hori	16884.000	PK	45.0	41.3	-1.8	32.8	51.7	68.2	16.5	Outside	Floor Noise
Hori	3750.349	AV	39.7	30.5	3.5	34.1	39.6	53.9	14.3	Inside	
Hori	4824.000	AV	35.6	32.7	4.0	34.2	38.1	53.9	15.8	Inside	Floor Noise
Hori	12060.000	AV	35.4	40.3	-2.7	33.5	39.5	53.9	14.4	Inside	Floor Noise
Hori	14472.000	AV	35.2	41.6	-2.4	32.8	41.6	53.9	12.3	Inside	Floor Noise
Hori	15540.000	AV	34.5	39.6	-2.1	33.5	38.5	53.9	15.4	Inside	Floor Noise
Vert	48.750	QP	30.7	11.1	7.0	28.5	20.3	40.0	19.7	Outside	
Vert	146.250	QP	32.4	14.7	7.8	28.1	26.8	43.5	16.7	Outside	
Vert	249.987	QP	26.8	17.2	8.5	27.6	24.9	46.0	21.1	Inside	
Vert	341.266	QP	30.7	15.9	9.1	27.8	27.9	46.0	18.1	Outside	
Vert	374.970	QP	30.6	16.9	9.3	28.1	28.7	46.0	17.3	Outside	
Vert	719.960	QP	31.2	20.9	10.7	28.0	34.8	46.0	11.2	Outside	
Vert	786.403	QP	31.2	21.7	11.0	27.7	36.2	46.0	9.8	Outside	
Vert	982.506	QP	37.6	23.4	11.6	27.1	45.5	53.9	8.4	Inside	
Vert	1249.931	PK	59.2	25.8	2.0	35.8	51.2	68.2	17.0	Outside	
Vert	1844.828	PK	63.9	28.5	2.4	35.2	59.6	68.2	8.6	Outside	
Vert	3750.349	PK	52.4	30.5	3.5	34.1	52.3	73.9	21.6	Inside	
Vert	4824.000	PK	44.0	32.7	4.0	34.2	46.5	73.9	27.4	Inside	Floor Noise
Vert	7236.000	PK	45.1	36.8	5.1	34.1	52.9	68.2	15.3	Outside	Floor Noise
Vert	9648.000	PK	44.9	38.9	6.0	34.7	55.1	68.2	13.1	Outside	Floor Noise
Vert	10360.000	PK	45.6	40.0	-3.3	34.4	47.9	68.2	20.3	Outside	Floor Noise
Vert	12060.000	PK	45.3	40.3	-2.7	33.5	49.4	73.9	24.5	Inside	Floor Noise
Vert	14472.000	PK	45.6	41.6	-2.4	32.8	52.0	73.9	21.9	Inside	Floor Noise
Vert	15540.000	PK	45.4	39.6	-2.1	33.5	49.4	73.9	24.5	Inside	Floor Noise
Vert	16884.000	PK	45.6	41.3	-1.8	32.8	52.3	68.2	15.9	Outside	Floor Noise
Vert	3750.349	AV	42.4	30.5	3.5	34.1	42.3	53.9	11.6	Inside	
Vert	4824.000	AV	35.6	32.7	4.0	34.2	38.1	53.9	15.8	Inside	Floor Noise
Vert	12060.000	AV	35.4	40.3	-2.7	33.5	39.5	53.9	14.4	Inside	Floor Noise
Vert	14472.000	AV	35.2	41.6	-2.4	32.8	41.6	53.9	12.3	Inside	Floor Noise
Vert	15540.000	AV	35.0	39.6	-2.1	33.5	39.0	53.9	14.9	Inside	Floor Noise

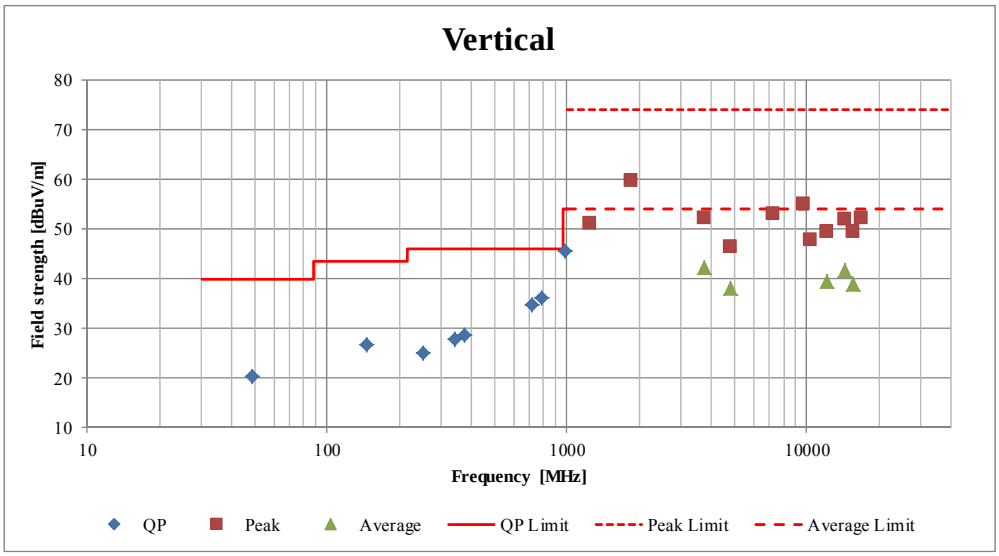
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission
(Plot data, Worst case)

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (30MHz-26.5GHz)
Mode	11n-20 Tx 2412MHz + 11a Tx 5180MHz Co location transmitting





Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5150MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5180MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5180MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5190MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5150.000	PK	43.4	33.0	4.2	34.1	46.5	68.2	21.7	Bandedge	11a
Hori	5150.000	PK	43.6	33.0	4.2	34.1	46.7	68.2	21.5	Bandedge	11n-20
Hori	5150.000	PK	43.9	33.0	4.2	34.1	47.0	68.2	21.2	Bandedge	11n-40
Hori	5150.000	AV	34.4	33.0	4.2	34.1	37.5	53.9	16.4	Bandedge	11a
Hori	5150.000	AV	34.8	33.0	4.2	34.1	37.9	53.9	16.0	Bandedge	11n-20
Hori	5150.000	AV	34.3	33.0	4.2	34.1	37.4	53.9	16.5	Bandedge	11n-40
Vert	5150.000	PK	43.5	33.0	4.2	34.1	46.6	68.2	21.6	Bandedge	11a
Vert	5150.000	PK	43.6	33.0	4.2	34.1	46.7	68.2	21.5	Bandedge	11n-20
Vert	5150.000	PK	43.3	33.0	4.2	34.1	46.4	68.2	21.8	Bandedge	11n-40
Vert	5150.000	AV	33.6	33.0	4.2	34.1	36.7	53.9	17.2	Bandedge	11a
Vert	5150.000	AV	33.8	33.0	4.2	34.1	36.9	53.9	17.0	Bandedge	11n-20
Vert	5150.000	AV	34.0	33.0	4.2	34.1	37.1	53.9	16.8	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5350MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5320MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5320MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5310MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5350.000	PK	44.5	32.9	4.3	34.0	47.7	68.2	20.5	Bandedge	11a
Hori	5350.000	PK	44.4	32.9	4.3	34.0	47.6	68.2	20.6	Bandedge	11n-20
Hori	5350.000	PK	44.6	32.9	4.3	34.0	47.8	68.2	20.4	Bandedge	11n-40
Hori	5350.000	AV	34.2	32.9	4.3	34.0	37.4	53.9	16.5	Bandedge	11a
Hori	5350.000	AV	34.6	32.9	4.3	34.0	37.8	53.9	16.1	Bandedge	11n-20
Hori	5350.000	AV	34.5	32.9	4.3	34.0	37.7	53.9	16.2	Bandedge	11n-40
Vert	5350.000	PK	43.7	32.9	4.3	34.0	46.9	68.2	21.3	Bandedge	11a
Vert	5350.000	PK	44.0	32.9	4.3	34.0	47.2	68.2	21.0	Bandedge	11n-20
Vert	5350.000	PK	44.0	32.9	4.3	34.0	47.2	68.2	21.0	Bandedge	11n-40
Vert	5350.000	AV	34.4	32.9	4.3	34.0	37.6	53.9	16.3	Bandedge	11a
Vert	5350.000	AV	34.2	32.9	4.3	34.0	37.4	53.9	16.5	Bandedge	11n-20
Vert	5350.000	AV	34.2	32.9	4.3	34.0	37.4	53.9	16.5	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5470MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5500MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5500MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5510MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5470.000	PK	44.1	32.9	4.3	33.9	47.4	73.9	26.5	Bandedge	11a
Hori	5470.000	PK	44.5	32.9	4.3	33.9	47.8	73.9	26.1	Bandedge	11n-20
Hori	5470.000	PK	44.3	32.9	4.3	33.9	47.6	73.9	26.3	Bandedge	11n-40
Hori	5470.000	AV	34.2	32.9	4.3	33.9	37.5	53.9	16.4	Bandedge	11a
Hori	5470.000	AV	34.3	32.9	4.3	33.9	37.6	53.9	16.3	Bandedge	11n-20
Hori	5470.000	AV	34.5	32.9	4.3	33.9	37.8	53.9	16.1	Bandedge	11n-40
Vert	5470.000	PK	43.8	32.9	4.3	33.9	47.1	73.9	26.8	Bandedge	11a
Vert	5470.000	PK	44.2	32.9	4.3	33.9	47.5	73.9	26.4	Bandedge	11n-20
Vert	5470.000	PK	44.0	32.9	4.3	33.9	47.3	73.9	26.6	Bandedge	11n-40
Vert	5470.000	AV	34.4	32.9	4.3	33.9	37.7	53.9	16.2	Bandedge	11a
Vert	5470.000	AV	34.5	32.9	4.3	33.9	37.8	53.9	16.1	Bandedge	11n-20
Vert	5470.000	AV	34.4	32.9	4.3	33.9	37.7	53.9	16.2	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5725MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5700MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5700MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5670MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5725.000	PK	44.5	33.2	4.5	33.9	48.3	73.9	25.6	Bandedge	11a
Hori	5725.000	PK	44.4	33.2	4.5	33.9	48.2	73.9	25.7	Bandedge	11n-20
Hori	5725.000	PK	44.6	33.2	4.5	33.9	48.4	73.9	25.5	Bandedge	11n-40
Hori	5725.000	AV	34.5	33.2	4.5	33.9	38.3	53.9	15.6	Bandedge	11a
Hori	5725.000	AV	34.2	33.2	4.5	33.9	38.0	53.9	15.9	Bandedge	11n-20
Hori	5725.000	AV	34.2	33.2	4.5	33.9	38.0	53.9	15.9	Bandedge	11n-40
Vert	5725.000	PK	44.1	33.2	4.5	33.9	47.9	73.9	26.0	Bandedge	11a
Vert	5725.000	PK	44.5	33.2	4.5	33.9	48.3	73.9	25.6	Bandedge	11n-20
Vert	5725.000	PK	44.3	33.2	4.5	33.9	48.1	73.9	25.8	Bandedge	11n-40
Vert	5725.000	AV	34.3	33.2	4.5	33.9	38.1	53.9	15.8	Bandedge	11a
Vert	5725.000	AV	34.4	33.2	4.5	33.9	38.2	53.9	15.7	Bandedge	11n-20
Vert	5725.000	AV	34.4	33.2	4.5	33.9	38.2	53.9	15.7	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5725MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5745MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5745MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5755MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5725.000	PK	44.6	33.2	4.5	33.9	48.4	73.9	25.5	Bandedge	11a
Hori	5725.000	PK	44.3	33.2	4.5	33.9	48.1	73.9	25.8	Bandedge	11n-20
Hori	5725.000	PK	44.5	33.2	4.5	33.9	48.3	73.9	25.6	Bandedge	11n-40
Hori	5725.000	AV	34.3	33.2	4.5	33.9	38.1	53.9	15.8	Bandedge	11a
Hori	5725.000	AV	34.2	33.2	4.5	33.9	38.0	53.9	15.9	Bandedge	11n-20
Hori	5725.000	AV	34.4	33.2	4.5	33.9	38.2	53.9	15.7	Bandedge	11n-40
Vert	5725.000	PK	44.4	33.2	4.5	33.9	48.2	73.9	25.7	Bandedge	11a
Vert	5725.000	PK	44.6	33.2	4.5	33.9	48.4	73.9	25.5	Bandedge	11n-20
Vert	5725.000	PK	34.5	33.2	4.5	33.9	38.3	73.9	35.6	Bandedge	11n-40
Vert	5725.000	AV	34.3	33.2	4.5	33.9	38.1	53.9	15.8	Bandedge	11a
Vert	5725.000	AV	34.4	33.2	4.5	33.9	38.2	53.9	15.7	Bandedge	11n-20
Vert	5725.000	AV	34.2	33.2	4.5	33.9	38.0	53.9	15.9	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Radiated Spurious Emission

Test place	Ise EMC Lab. No. 2 Semi Anechoic Chamber
Report No.	10607274H
Date	06/24/2015
Temperature/ Humidity	25 deg. C / 43% RH
Engineer	Tsubasa Takayama (5725MHz edge)
Mode	11n-20 Tx 2412MHz + 11a Tx 5825MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-20 Tx 5825MHz Co location transmitting 11n-20 Tx 2412MHz + 11n-40 Tx 5795MHz Co location transmitting

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Inside or Outside of Restricted Bands	Remark
Hori	5850.000	PK	44.3	33.4	4.5	34.0	48.2	73.9	25.7	Bandedge	11a
Hori	5850.000	PK	44.5	33.4	4.5	34.0	48.4	73.9	25.5	Bandedge	11n-20
Hori	5850.000	PK	44.3	33.4	4.5	34.0	48.2	73.9	25.7	Bandedge	11n-40
Hori	5850.000	AV	34.4	33.4	4.5	34.0	38.3	53.9	15.6	Bandedge	11a
Hori	5850.000	AV	34.7	33.4	4.5	34.0	38.6	53.9	15.3	Bandedge	11n-20
Hori	5850.000	AV	34.3	33.4	4.5	34.0	38.2	53.9	15.7	Bandedge	11n-40
Vert	5850.000	PK	44.1	33.4	4.5	34.0	48.0	73.9	25.9	Bandedge	11a
Vert	5850.000	PK	44.3	33.4	4.5	34.0	48.2	73.9	25.7	Bandedge	11n-20
Vert	5850.000	PK	34.6	33.4	4.5	34.0	38.5	73.9	35.4	Bandedge	11n-40
Vert	5850.000	AV	34.8	33.4	4.5	34.0	38.7	53.9	15.2	Bandedge	11a
Vert	5850.000	AV	34.5	33.4	4.5	34.0	38.4	53.9	15.5	Bandedge	11n-20
Vert	5850.000	AV	34.3	33.4	4.5	34.0	38.2	53.9	15.7	Bandedge	11n-40

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amprifier)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

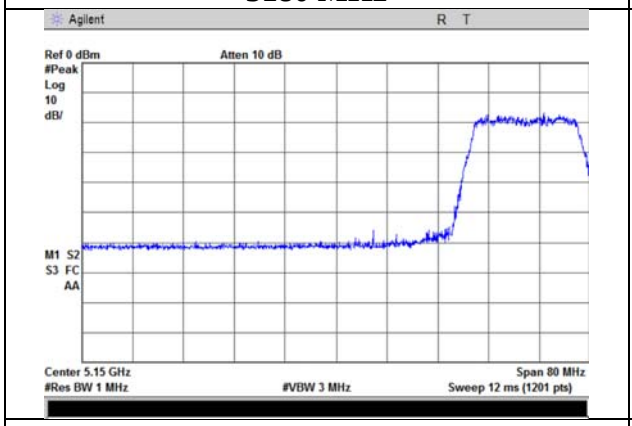
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB
*Noises that had duty cycle synchronized with the fundamental frequency were not detected at the band-edge and harmonics frequencies.

Band Edge confirmation

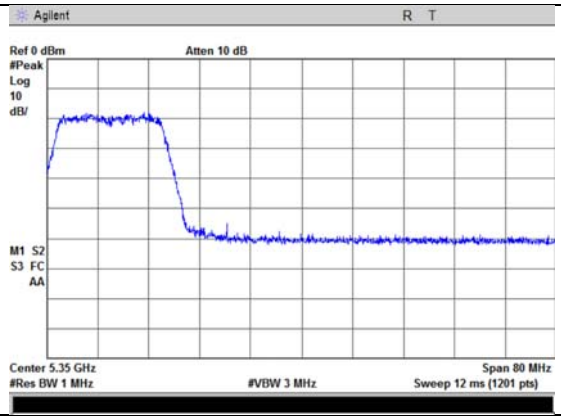
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11a Tx

11a Peak detect

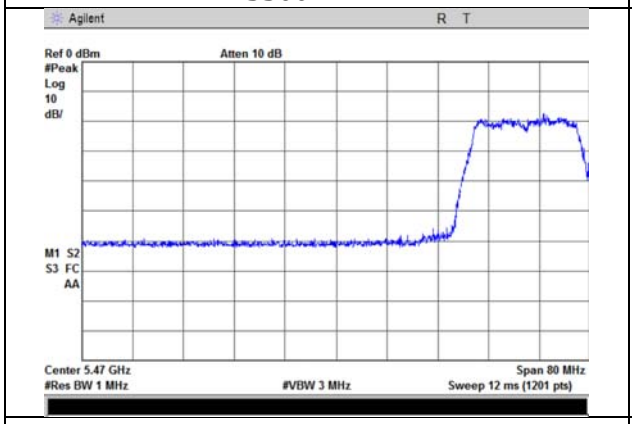
5180 MHz



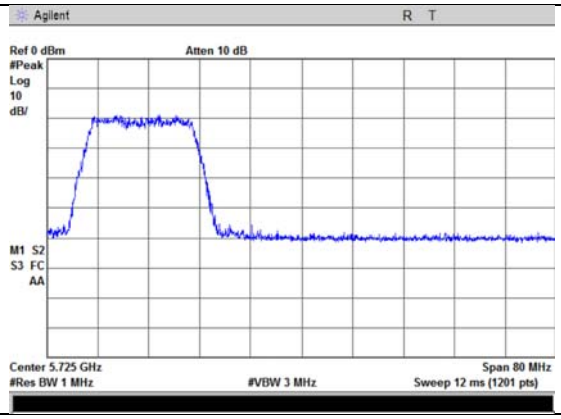
5320 MHz



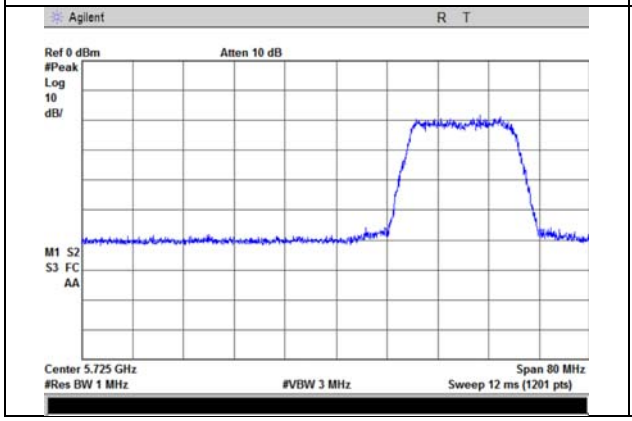
5500 MHz



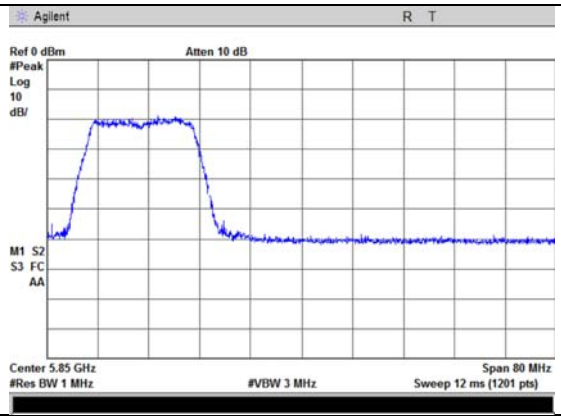
5700 MHz



5745 MHz



5825 MHz



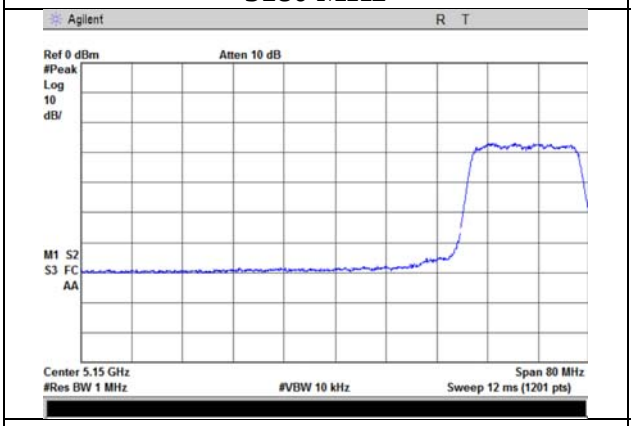
* Final result of band edge was measured as Radiated Spurious Emission. Refer to Radiated Spurious Emission's pages.

Band Edge confirmation

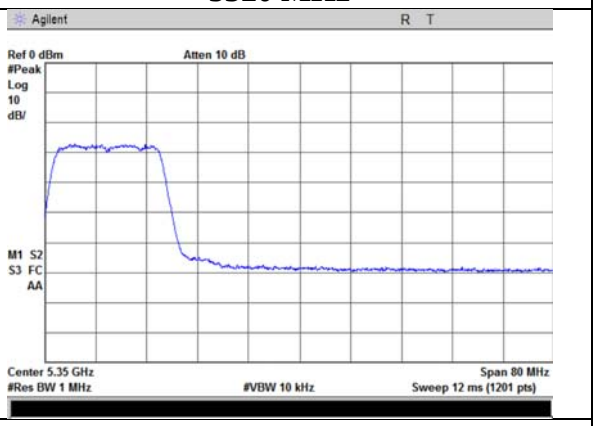
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11a Tx

11a Average detect

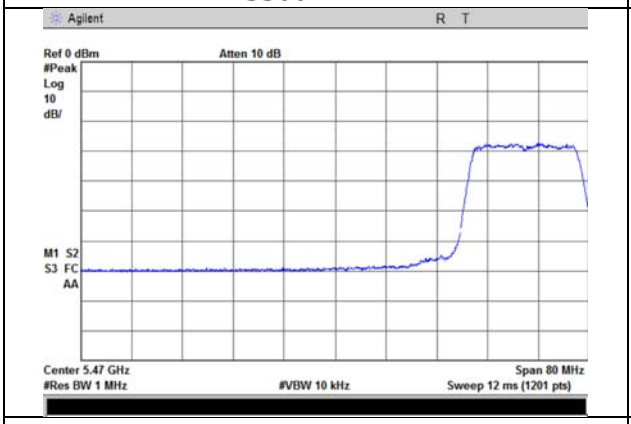
5180 MHz



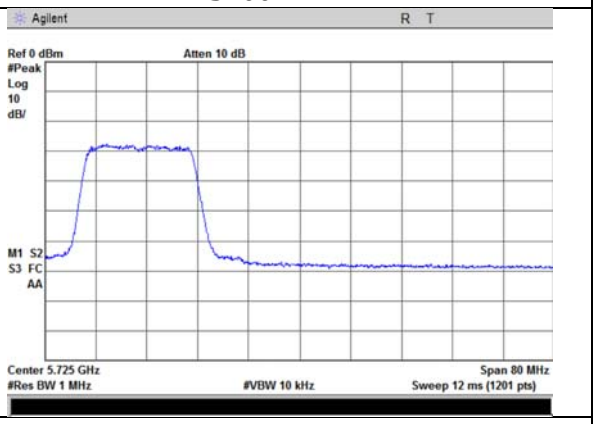
5320 MHz



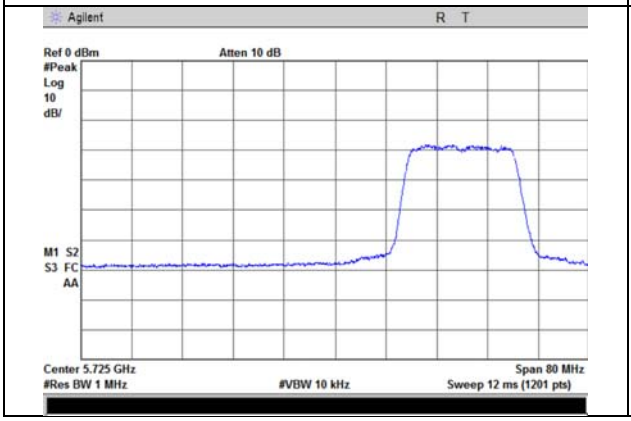
5500 MHz



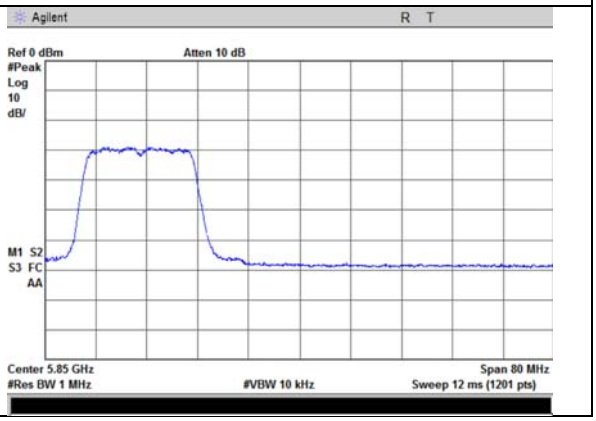
5700 MHz



5745 MHz



5825 MHz



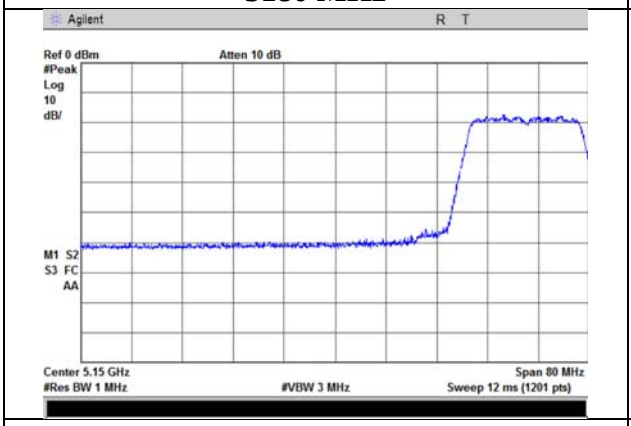
* Final result of band edge was measured as Radiated Spurious Emission. Refer to Radiated Spurious Emission's pages.

Band Edge confirmation

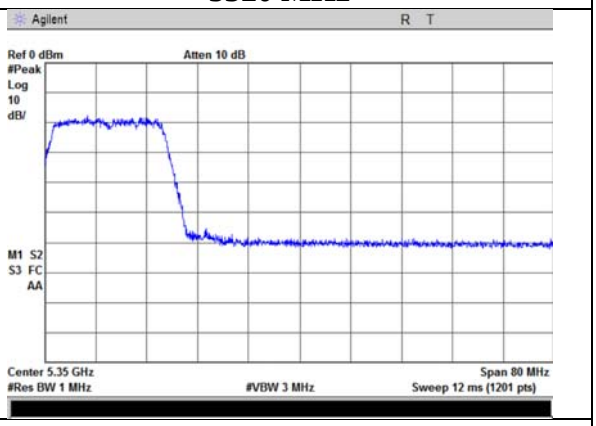
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11n-20 Tx

11n-20 Peak detect

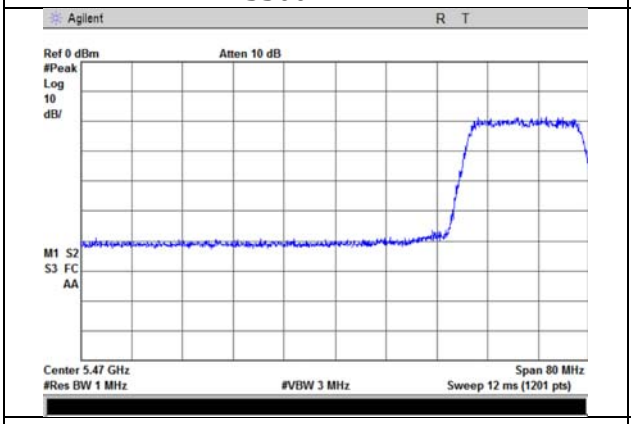
5180 MHz



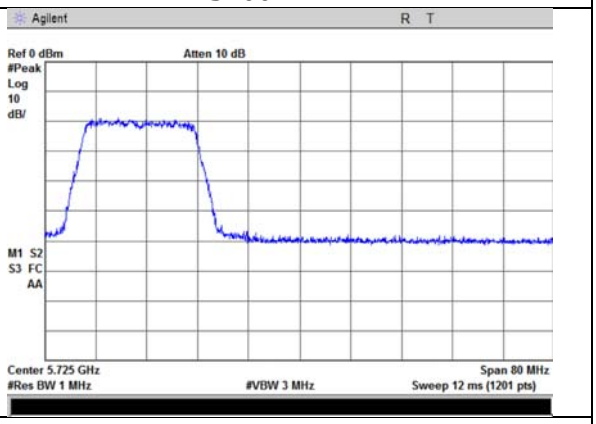
5320 MHz



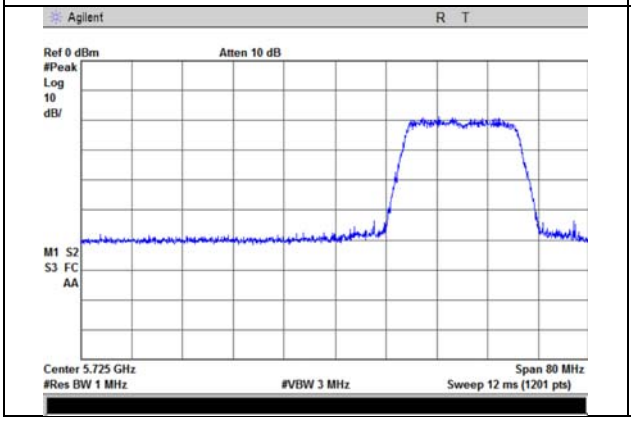
5500 MHz



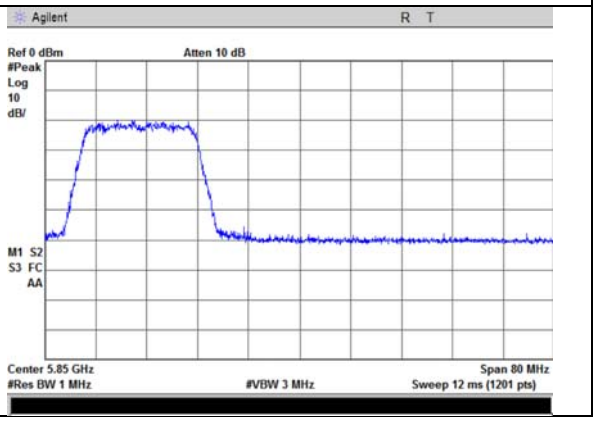
5700 MHz



5745 MHz



5825 MHz



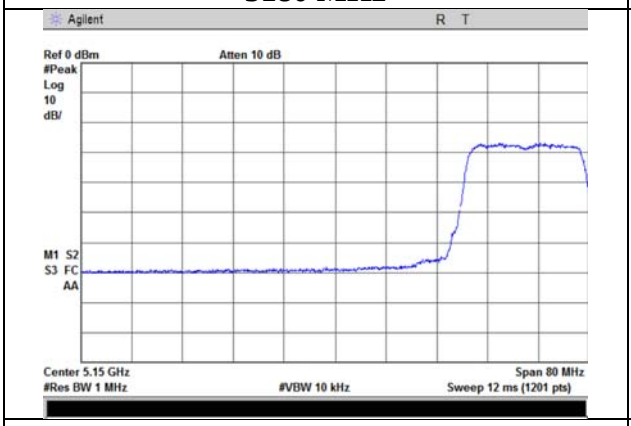
* Final result of band edge was measured as Radiated Spurious Emission. Refer to Radiated Spurious Emission's pages.

Band Edge confirmation

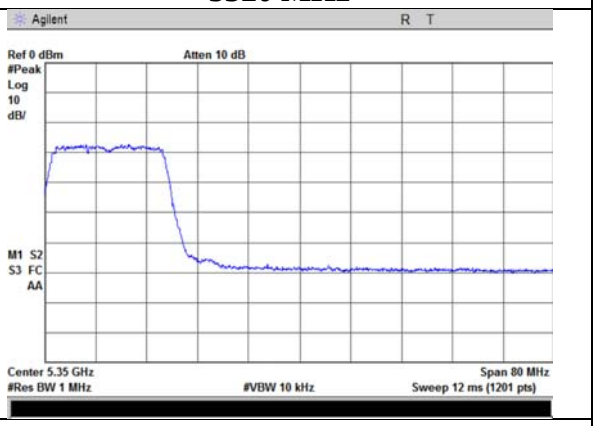
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11n-20 Tx

11n-20 Average detect

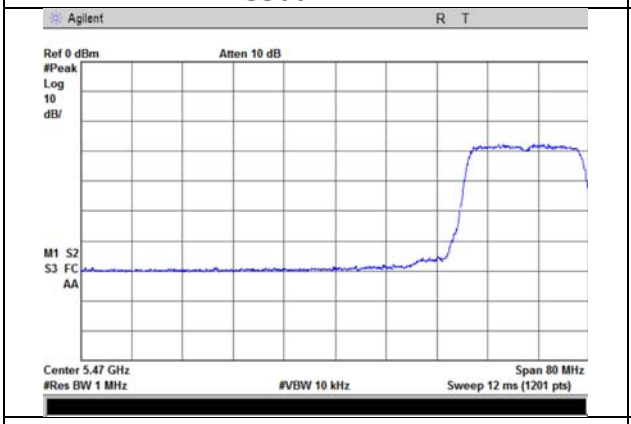
5180 MHz



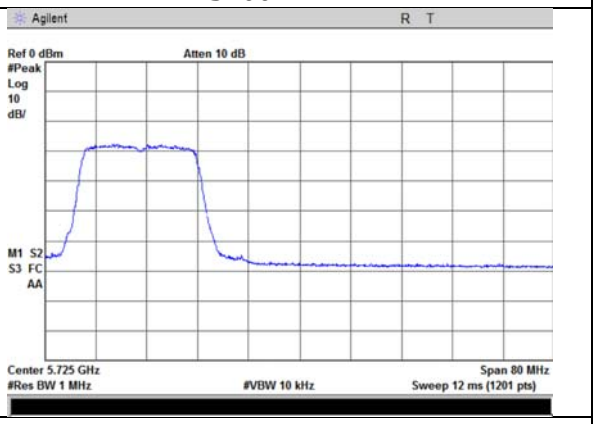
5320 MHz



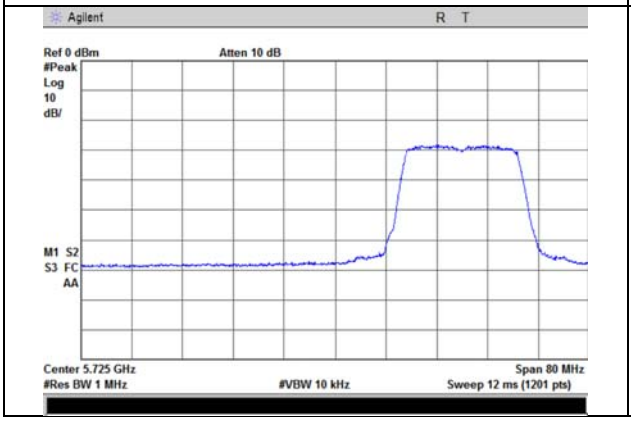
5500 MHz



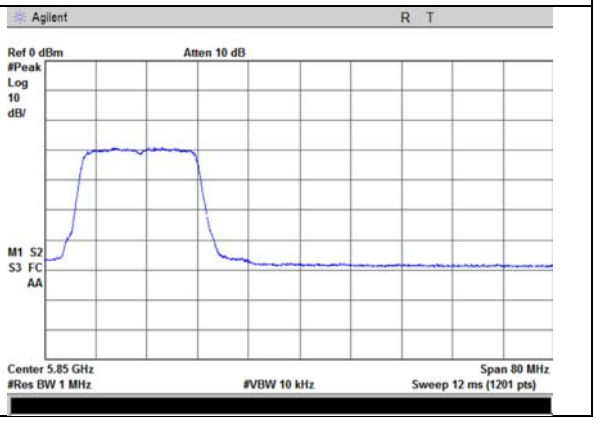
5700 MHz



5745 MHz



5825 MHz



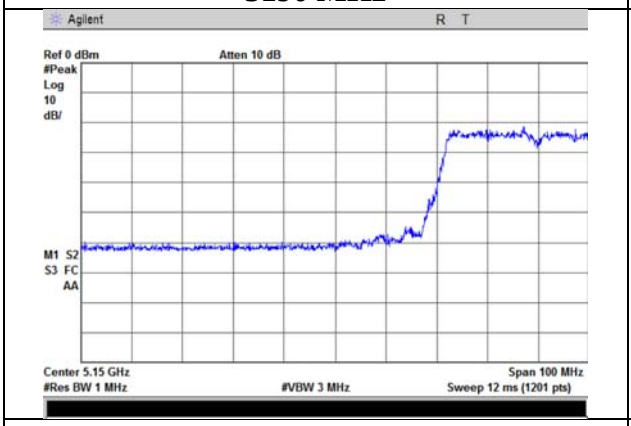
* Final result of band edge was measured as Radiated Spurious Emission. Refer to Radiated Spurious Emission's pages.

Band Edge confirmation

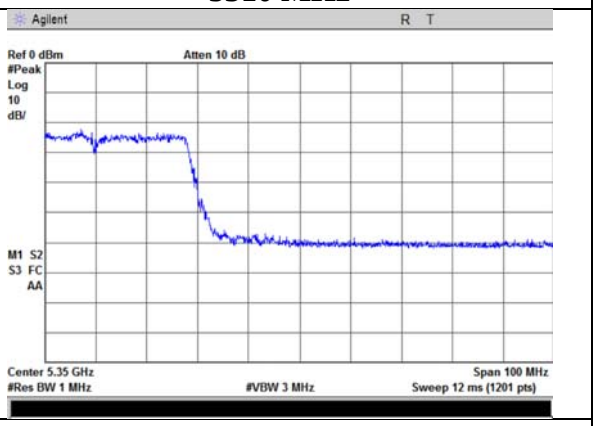
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11n-40 Tx

11n-40 Peak detect

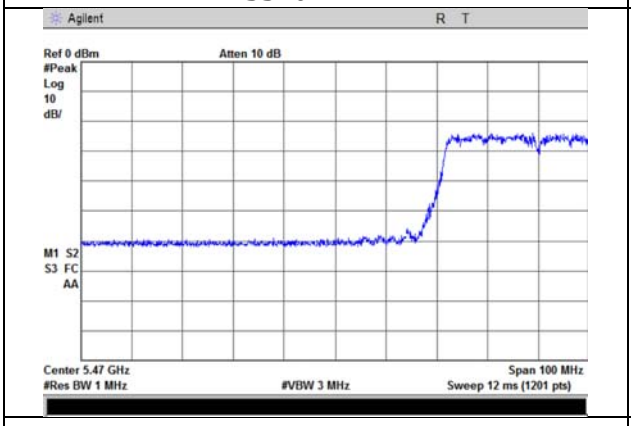
5190 MHz



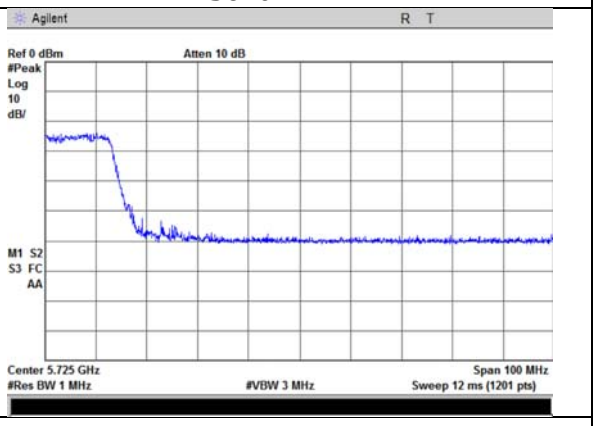
5310 MHz



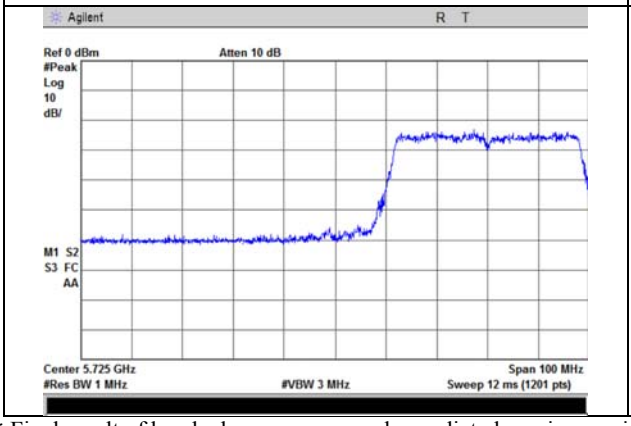
5510 MHz



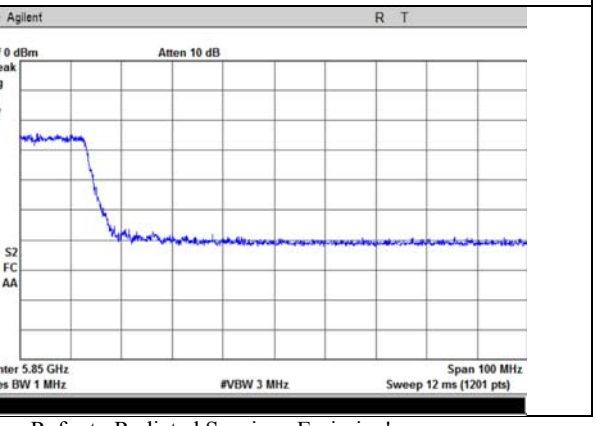
5670 MHz



5755 MHz



5795 MHz



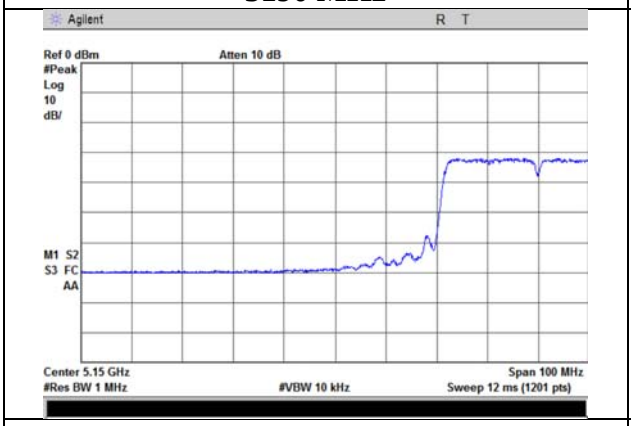
* Final result of band edge was measured as radiated spurious emission. Refer to Radiated Spurious Emission's pages.

Band Edge confirmation

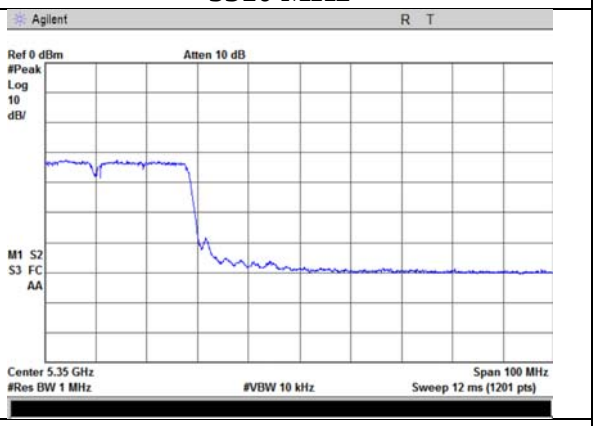
Test place	Ise EMC Lab. No.3 Anechoic Chamber
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 40% RH
Engineer	Takafumi Noguchi
Mode	11n-40 Tx

11n-40 Average detect

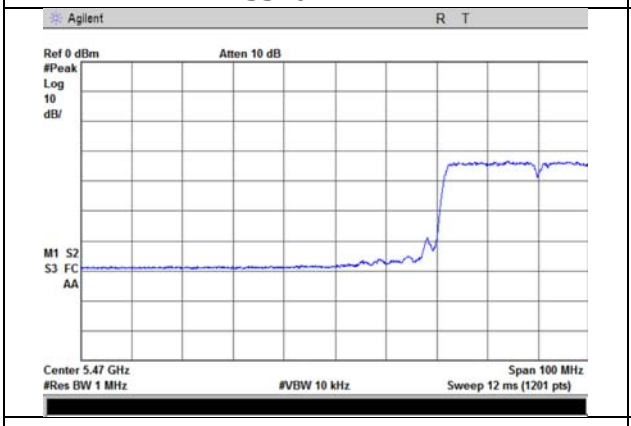
5190 MHz



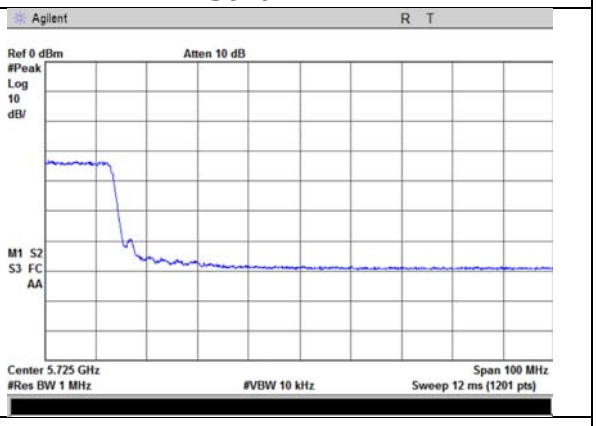
5310 MHz



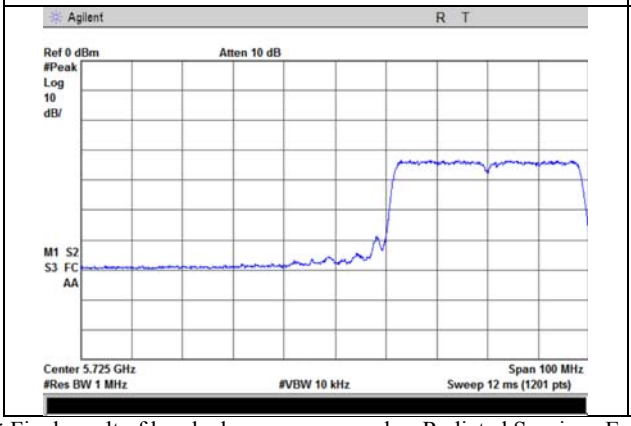
5510 MHz



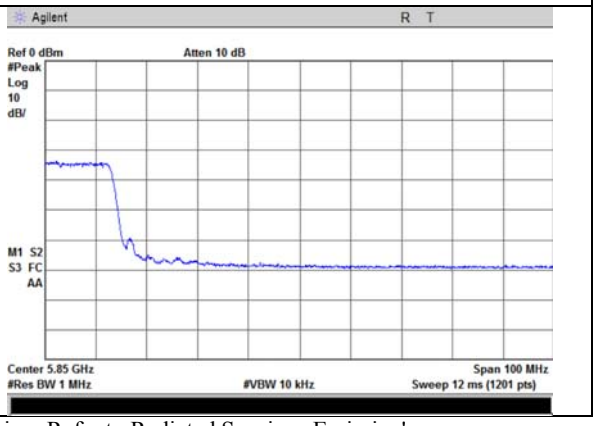
5670 MHz



5755 MHz



5795 MHz



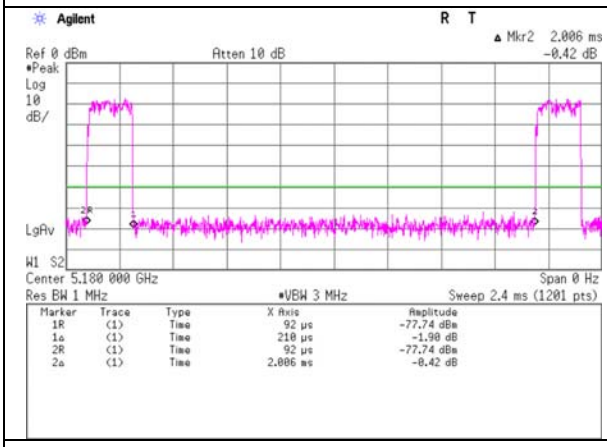
* Final result of band edge was measured as Radiated Spurious Emission. Refer to Radiated Spurious Emission's pages.

VBW (AV) Calculation

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/02/2015
Temperature/ Humidity	24deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11a Tx / 11n-20 Tx / 11n-40 Tx

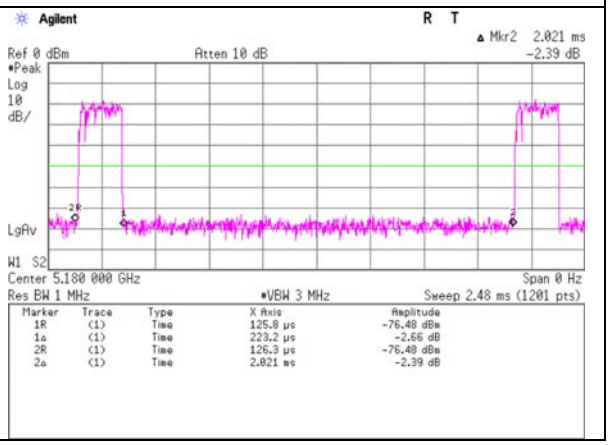
11a 54Mbps

Tx on / (Tx on + Tx off) = 0.105
Tx on / (Tx on + Tx off) * 100 = 10.5 %
Duty factor = 10 * log (2.006 / 0.21) = 9.80 dB



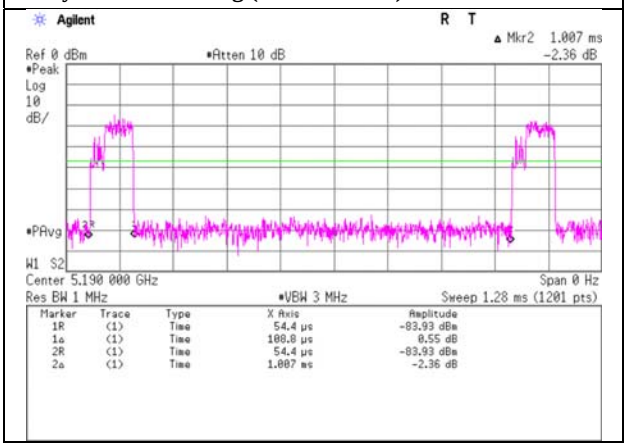
11n-20 MCS7

Tx on / (Tx on + Tx off) = 0.110
Tx on / (Tx on + Tx off) * 100 = 11.0 %
Duty factor = 10 * log (2.021 / 0.2232) = 9.57 dB



11n-40 MCS7

Tx on / (Tx on + Tx off) = 0.108
Tx on / (Tx on + Tx off) * 100 = 10.8 %
Duty factor = 10 * log (1.007 / 0.1088) = 9.66 dB

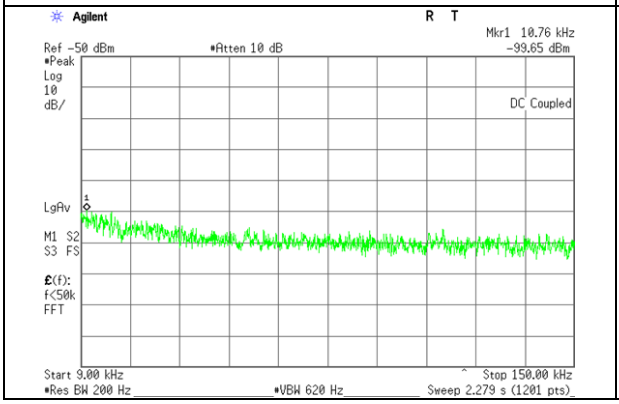


Conducted Spurious Emission

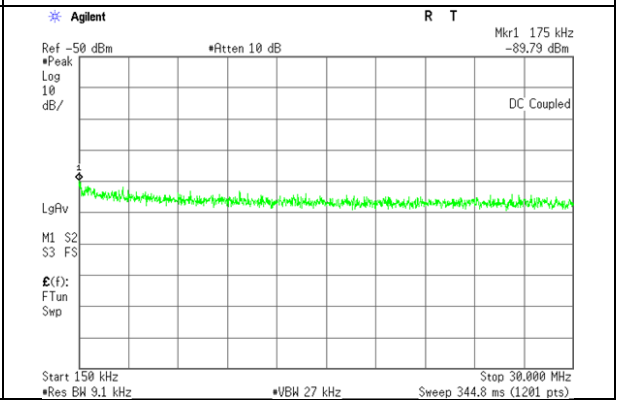
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11a Tx

11a Tx 5180MHz

9kHz-150kHz



150kHz-30MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenator [dB]	Antenna Gain [dBi]	N (Number of Output	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
10.76	-99.7	1.00	9.8	6.5	1	-82.3	300	6.0	-21.1	46.9	68.0	
175.00	-89.8	1.00	9.8	6.5	1	-72.5	300	6.0	-11.2	22.7	33.9	

E=EIRP-20log(D)+Ground bounce +104.8[dBuV/m]

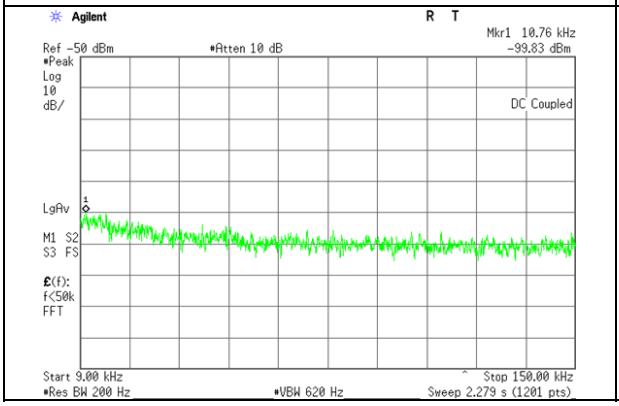
EIRP=Reading+Cable(including customer supply's cable) Loss+Attenator+Antenna Gain+10*log(N)

Conducted Spurious Emission

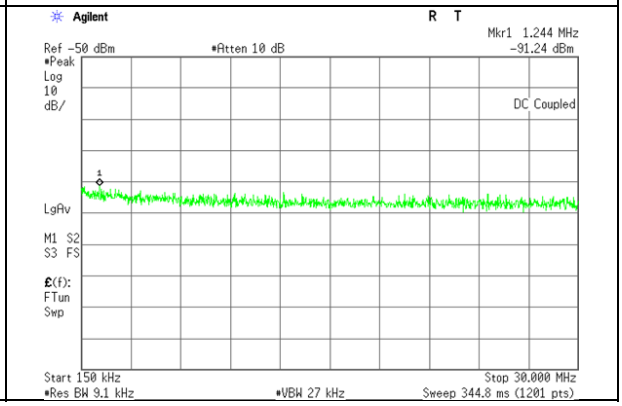
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10607274H
Date	03/03/2015
Temperature/ Humidity	23deg. C / 32% RH
Engineer	Tsubasa Takayama
Mode	11n-40 Tx

11n-40 Tx 5190MHz

9kHz-150kHz



150kHz-30MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenator [dB]	Antenna Gain [dBi]	N (Number of Output	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
10.76	-99.8	1.00	9.8	6.5	1	-82.5	300	6.0	-21.2	46.9	68.1	
1244.00	-91.2	1.01	9.8	6.5	1	-73.9	30	6.0	7.4	25.7	18.3	

E=EIRP-20log(D)+Ground bounce +104.8[dBuV/m]
EIRP=Reading+Cable(including customer supply's cable) Loss+Attenator+Antenna Gain+10*log(N)

APPENDIX 2: Test instruments

EMI test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2015/02/19 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	1301	RE	2015/01/13 * 12
MJM-16	Measure	KOMELON	KMC-36	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	RE	2014/04/08 * 12 *1)
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	258	RE	2014/05/26 * 12 *1)
MCC-167	Microwave Cable	Junkosha	MWX221	1404S374(1m) / 1405S074(5m)	RE	2014/05/26 * 12 *1)
MPA-11	MicroWave System Amplifier	Agilent	83017A	MY39500779	RE	2014/03/24 * 12 *1)
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2014/05/26 * 12 *1)
MHF-22	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCB	602	RE	2015/01/27 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2014/12/15 * 12
MPA-22	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400-33-8P / AMF-4F-2600400-33-8P	1871355 /1871328	RE	2014/09/11 * 12
MHA-29	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	00152399	RE	2014/09/02 * 12
MCC-54	Microwave Cable	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2014/03/11 * 12 *1)
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	RE	2014/08/19 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1915	RE	2014/10/18 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	174	RE	2014/10/18 * 12
MCC-51	Coaxial cable	UL Japan	-	-	RE	2014/07/14 * 12
MAT-70	Attenuator(6dB)	Agilent	8491A-006	MY52460153	RE	2014/04/14 * 12 *1)
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260834	RE	2015/03/10 * 12
MRENT-116	Spectrum Analyzer	Agilent	E4440A	MY46187620	AT	2015/03/09 * 12
MPM-12	Power Meter	Anritsu	ML2495A	0825002	AT	2014/06/16 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	AT	2014/06/16 * 12
MPSE-22	Power sensor	Agilent	N1923A	MY54070003	AT	2014/04/04 * 12 *1)
MPM-16	Power Meter	Agilent	8990B	MY51000271	AT	2014/04/04 * 12 *1)
MAT-23	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT	2014/03/13 * 12 *1)
MCC-66	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	28636/2	AT	2014/04/09 * 12 *1)
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	AT	2014/12/22 * 12
MCC-38	Coaxial Cable	UL Japan	-	-	AT	2014/12/02 * 12
MAT-10	Attenuator(10dB)	Weinschel Corp	2	BL1173	AT	2014/11/19 * 12
MSA-16	Spectrum Analyzer	Agilent	E4440A	MY46186390	AT	2015/02/16 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2015/02/05 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	3950M00205	RE	2015/06/02 * 12
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2014/06/25 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE	2015/01/13 * 12
MJM-14	Measure	KOMELON	KMC-36	-	RE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE	2014/11/12 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE	2015/06/08 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2014/10/18 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2014/10/18 * 12

EMI test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2015/02/06 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2014/11/11 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2014/09/26 * 12
MCC-166	Microwave Cable	Junkosha	MWX221	1303S120(1m) / 1311S167(5m)	RE	2014/09/24 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2015/01/28 * 12

***1) This test equipment was used for the tests before the expiration date of the calibration.**

The expiration date of the calibration is the end of the expired month.
All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

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

Test Item: RE: Radiated Emission
AT: Antenna Terminal Conducted test