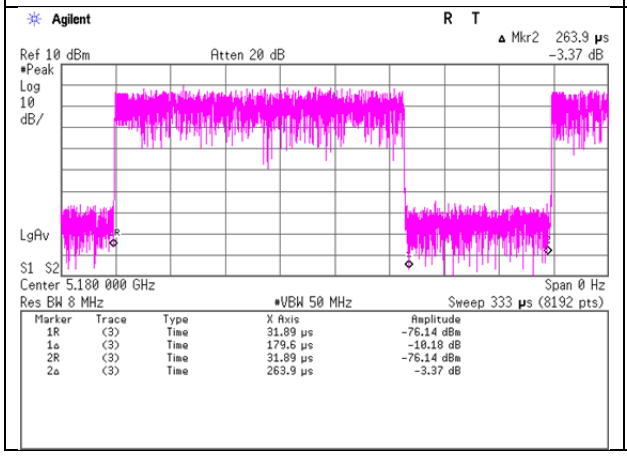
Burst rate confirmation

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

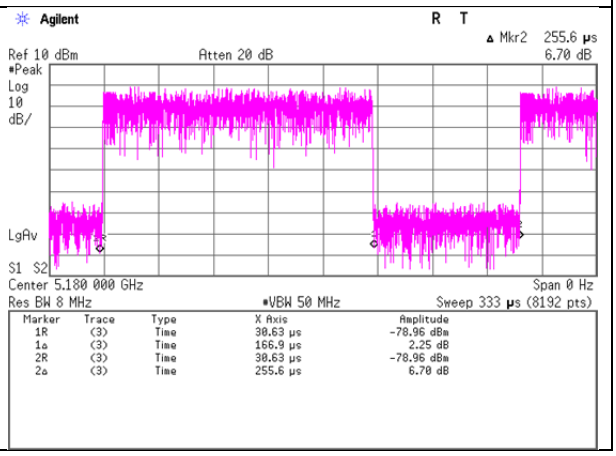
11a 54Mbps

Tx on / (Tx on + Tx off) =	**0.681**
Tx on / (Tx on + Tx off) * 100 =	**68.1 %**
Duty factor = 10 * log (0.2639 / 0.1796) =	**1.67 dB**



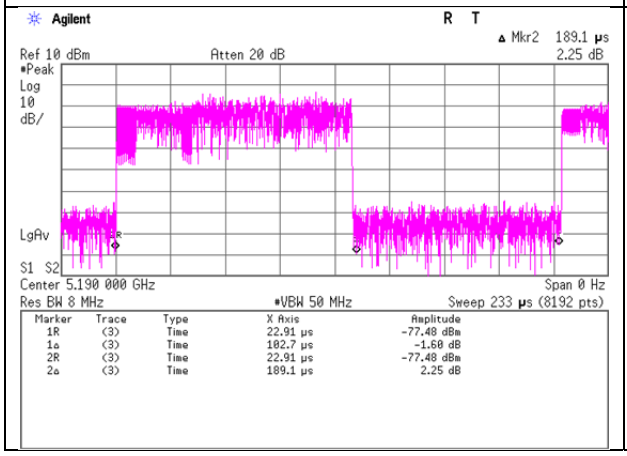
11n-20 MCS7

Tx on / (Tx on + Tx off) =	**0.653**
Tx on / (Tx on + Tx off) * 100 =	**65.3 %**
Duty factor = 10 * log (0.2556 / 0.1669) =	**1.85 dB**



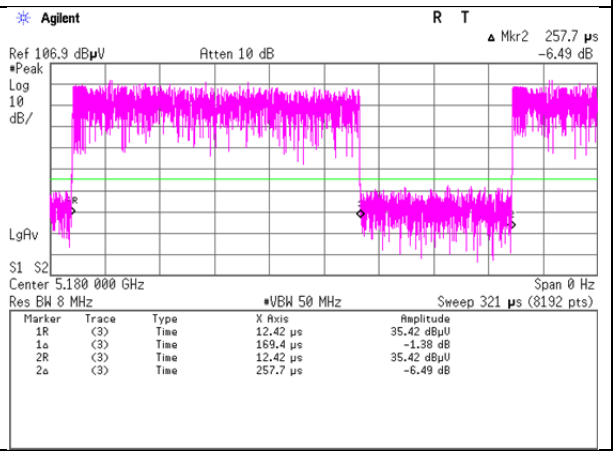
11n-40 MCS7

Tx on / (Tx on + Tx off) =	**0.543**
Tx on / (Tx on + Tx off) * 100 =	**54.3 %**
Duty factor = 10 * log (0.1891 / 0.1027) =	**2.65 dB**



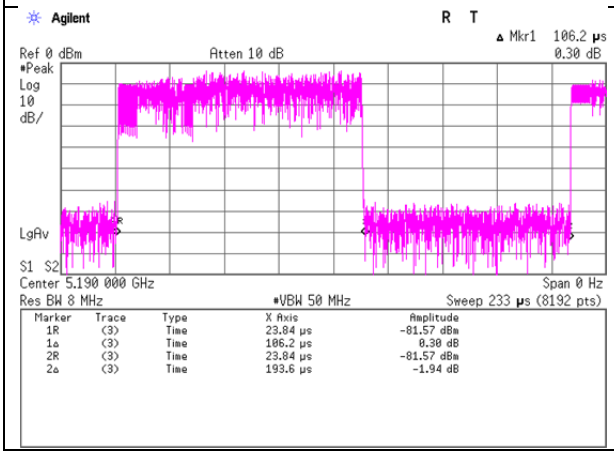
11ac-20 MCS7

Tx on / (Tx on + Tx off) =	**0.657**
Tx on / (Tx on + Tx off) * 100 =	**65.7 %**
Duty factor = 10 * log (0.2577 / 0.1699) =	**1.82 dB**



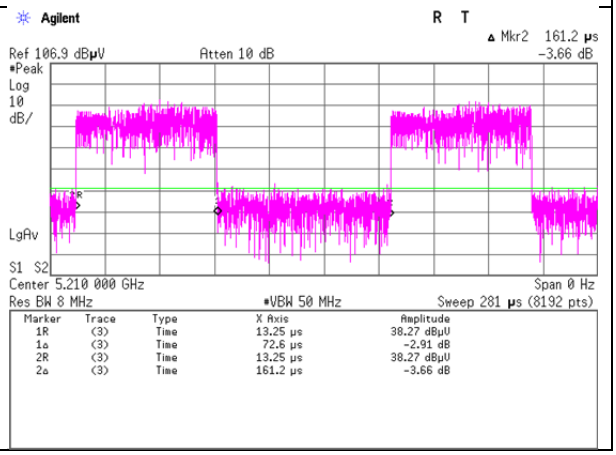
11ac-40 MCS7

Tx on / (Tx on + Tx off) =	0.549
Tx on / (Tx on + Tx off) * 100 =	54.9 %
Duty factor = 10 * log (0.1936 / 0.1062) =	2.61 dB



11ac-80 MCS7

Tx on / (Tx on + Tx off) =	0.450
Tx on / (Tx on + Tx off) * 100 =	45.0 %
Duty factor = 10 * log (0.1612 / 0.0726) =	3.46 dB

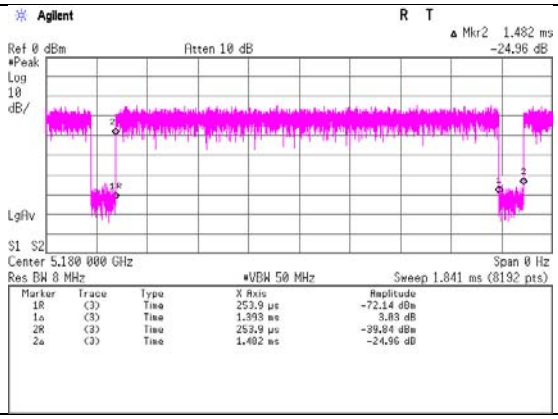


Burst rate confirmation

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

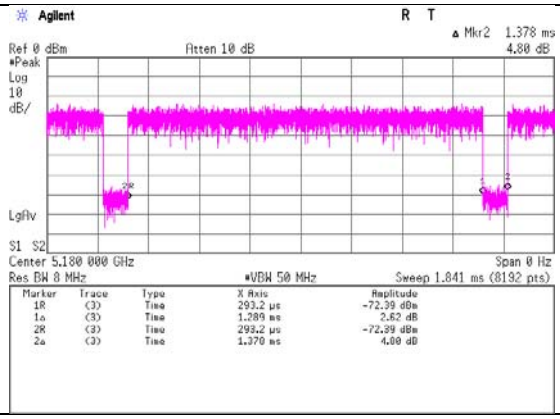
11a 6Mbps

Tx on / (Tx on + Tx off) = 0.940
Tx on / (Tx on + Tx off) * 100 = 94.0 %
Duty factor = 10 * log (1.482 / 1.393) = 0.27 dB



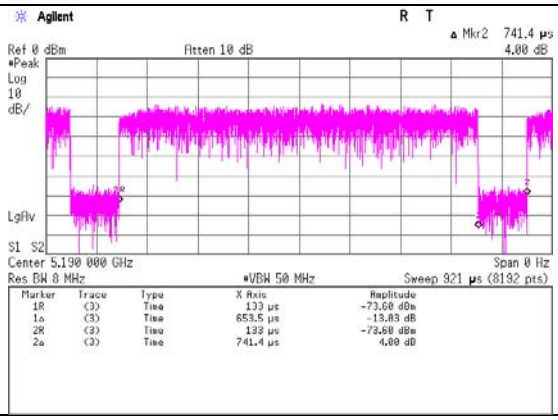
11n-20 MCS0

Tx on / (Tx on + Tx off) = 0.935
Tx on / (Tx on + Tx off) * 100 = 93.5 %
Duty factor = 10 * log (1.378 / 1.289) = 0.29 dB



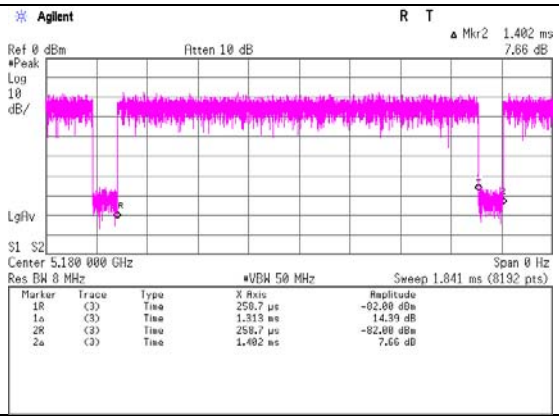
11n-40 MCS 0

Tx on / (Tx on + Tx off) = 0.881
Tx on / (Tx on + Tx off) * 100 = 88.1 %
Duty factor = 10 * log (0.7414 / 0.6535) = 0.55 dB

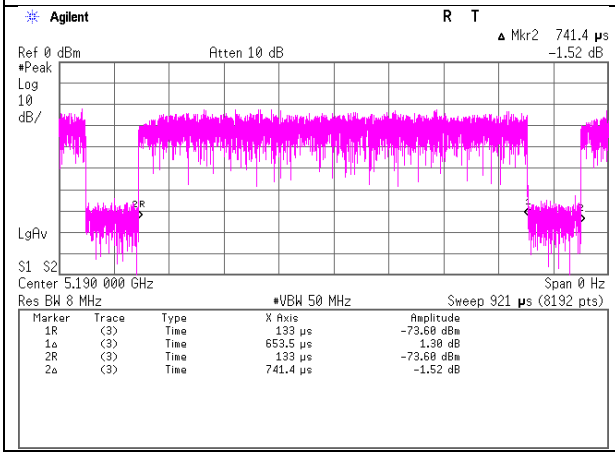


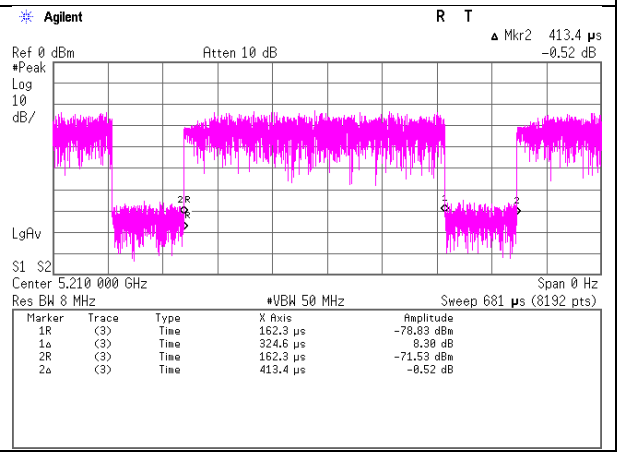
11ac-20 MCS0

Tx on / (Tx on + Tx off) = 0.937
Tx on / (Tx on + Tx off) * 100 = 93.7 %
Duty factor = 10 * log (1.402 / 1.313) = 0.28 dB



11ac-40 MCS 0		11ac-80 MCS0	
Tx on / (Tx on + Tx off) =	0.881	Tx on / (Tx on + Tx off) =	0.785
Tx on / (Tx on + Tx off) * 100 =	88.1 %	Tx on / (Tx on + Tx off) * 100 =	78.5 %
Duty factor = 10 * log (0.7414 / 0.6535) =	0.55 dB	Duty factor = 10 * log (0.4134 / 0.3246) =	1.05 dB





Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11a

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-18.70	2.13	10.13	1.67	2.0	0.00	-4.77	11.00	15.77	-2.77	17.00	19.77
5220	-19.03	2.13	10.13	1.67	2.0	0.00	-5.10	11.00	16.10	-3.10	17.00	20.10
5240	-18.68	2.14	10.13	1.67	2.0	0.00	-4.74	11.00	15.74	-2.74	17.00	19.74
5260	-18.56	2.14	10.13	1.67	2.0	0.00	-4.62	11.00	15.62	-2.62	17.00	19.62
5300	-18.79	2.15	10.13	1.67	2.0	0.00	-4.84	11.00	15.84	-2.84	17.00	19.84
5320	-19.04	2.15	10.13	1.67	2.0	0.00	-5.09	11.00	16.09	-3.09	17.00	20.09
5500	-20.12	2.18	10.14	1.67	2.0	0.00	-6.13	11.00	17.13	-4.13	17.00	21.13
5580	-19.31	2.18	10.13	1.67	2.0	0.00	-5.33	11.00	16.33	-3.33	17.00	20.33
5700	-19.03	2.22	10.12	1.67	2.0	0.00	-5.02	11.00	16.02	-3.02	17.00	20.02
5720	-19.11	2.22	10.12	1.67	2.0	0.00	-5.10	11.00	16.10	-3.10	17.00	20.10
5745	-21.77	2.23	10.12	1.67	2.0	0.27	-7.48	30.00	37.48	-5.48	36.00	41.48
5785	-21.83	2.24	10.12	1.67	2.0	0.27	-7.53	30.00	37.53	-5.53	36.00	41.53
5825	-21.47	2.24	10.11	1.67	2.0	0.27	-7.18	30.00	37.18	-5.18	36.00	41.18

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11n-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-18.74	2.13	10.13	1.85	2.0	0.00	-4.63	11.00	15.63	-2.63	17.00	19.63
5220	-19.43	2.13	10.13	1.85	2.0	0.00	-5.32	11.00	16.32	-3.32	17.00	20.32
5240	-19.44	2.14	10.13	1.85	2.0	0.00	-5.32	11.00	16.32	-3.32	17.00	20.32
5260	-18.98	2.14	10.13	1.85	2.0	0.00	-4.86	11.00	15.86	-2.86	17.00	19.86
5300	-19.51	2.15	10.13	1.85	2.0	0.00	-5.38	11.00	16.38	-3.38	17.00	20.38
5320	-19.55	2.15	10.13	1.85	2.0	0.00	-5.42	11.00	16.42	-3.42	17.00	20.42
5500	-20.36	2.18	10.14	1.85	2.0	0.00	-6.19	11.00	17.19	-4.19	17.00	21.19
5580	-19.76	2.18	10.13	1.85	2.0	0.00	-5.60	11.00	16.60	-3.60	17.00	20.60
5700	-19.11	2.22	10.12	1.85	2.0	0.00	-4.92	11.00	15.92	-2.92	17.00	19.92
5720	-19.50	2.22	10.12	1.85	2.0	0.00	-5.31	11.00	16.31	-3.31	17.00	20.31
5745	-22.24	2.23	10.12	1.85	2.0	0.27	-7.77	30.00	37.77	-5.77	36.00	41.77
5785	-21.86	2.24	10.12	1.85	2.0	0.27	-7.38	30.00	37.38	-5.38	36.00	41.38
5825	-22.09	2.24	10.11	1.85	2.0	0.27	-7.62	30.00	37.62	-5.62	36.00	41.62

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11n-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5190	-22.39	2.13	10.13	2.65	2.0	0.00	-7.48	11.00	18.48	-5.48	17.00	22.48
5230	-23.03	2.14	10.13	2.65	2.0	0.00	-8.11	11.00	19.11	-6.11	17.00	23.11
5270	-23.21	2.15	10.13	2.65	2.0	0.00	-8.28	11.00	19.28	-6.28	17.00	23.28
5310	-22.80	2.15	10.13	2.65	2.0	0.00	-7.87	11.00	18.87	-5.87	17.00	22.87
5510	-24.02	2.18	10.14	2.65	2.0	0.00	-9.05	11.00	20.05	-7.05	17.00	24.05
5550	-23.59	2.19	10.14	2.65	2.0	0.00	-8.61	11.00	19.61	-6.61	17.00	23.61
5670	-23.14	2.21	10.13	2.65	2.0	0.00	-8.15	11.00	19.15	-6.15	17.00	23.15
5710	-22.92	2.22	10.14	2.65	2.0	0.00	-7.91	11.00	18.91	-5.91	17.00	22.91
5755	-24.99	2.23	10.12	2.65	2.0	0.27	-9.72	30.00	39.72	-7.72	36.00	43.72
5795	-25.49	2.24	10.12	2.65	2.0	0.27	-10.21	30.00	40.21	-8.21	36.00	44.21

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11ac-20

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-19.28	2.13	10.13	1.82	2.0	0.00	-5.20	11.00	16.20	-3.20	17.00	20.20
5220	-19.33	2.13	10.13	1.82	2.0	0.00	-5.25	11.00	16.25	-3.25	17.00	20.25
5240	-19.42	2.14	10.13	1.82	2.0	0.00	-5.33	11.00	16.33	-3.33	17.00	20.33
5260	-18.87	2.14	10.13	1.82	2.0	0.00	-4.78	11.00	15.78	-2.78	17.00	19.78
5300	-19.52	2.15	10.13	1.82	2.0	0.00	-5.42	11.00	16.42	-3.42	17.00	20.42
5320	-19.50	2.15	10.13	1.82	2.0	0.00	-5.40	11.00	16.40	-3.40	17.00	20.40
5500	-19.94	2.18	10.14	1.82	2.0	0.00	-5.80	11.00	16.80	-3.80	17.00	20.80
5580	-19.43	2.18	10.13	1.82	2.0	0.00	-5.30	11.00	16.30	-3.30	17.00	20.30
5700	-19.42	2.22	10.12	1.82	2.0	0.00	-5.26	11.00	16.26	-3.26	17.00	20.26
5720	-19.61	2.22	10.12	1.82	2.0	0.00	-5.45	11.00	16.45	-3.45	17.00	20.45
5745	-21.67	2.23	10.12	1.82	2.0	0.27	-7.23	30.00	37.23	-5.23	36.00	41.23
5785	-21.92	2.24	10.12	1.82	2.0	0.27	-7.47	30.00	37.47	-5.47	36.00	41.47
5825	-21.94	2.24	10.11	1.82	2.0	0.27	-7.50	30.00	37.50	-5.50	36.00	41.50

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 7, 2016
Temperature / Humidity	24deg. C / 51 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11ac-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5190	-22.78	2.13	10.13	2.61	2.0	0.00	-7.91	11.00	18.91	-5.91	17.00	22.91
5230	-22.90	2.14	10.13	2.61	2.0	0.00	-8.02	11.00	19.02	-6.02	17.00	23.02
5270	-22.88	2.15	10.13	2.61	2.0	0.00	-7.99	11.00	18.99	-5.99	17.00	22.99
5310	-23.02	2.15	10.13	2.61	2.0	0.00	-8.13	11.00	19.13	-6.13	17.00	23.13
5510	-23.28	2.18	10.14	2.61	2.0	0.00	-8.35	11.00	19.35	-6.35	17.00	23.35
5550	-23.31	2.19	10.14	2.61	2.0	0.00	-8.37	11.00	19.37	-6.37	17.00	23.37
5670	-23.35	2.21	10.13	2.61	2.0	0.00	-8.40	11.00	19.40	-6.40	17.00	23.40
5710	-23.18	2.22	10.14	2.61	2.0	0.00	-8.21	11.00	19.21	-6.21	17.00	23.21
5755	-25.44	2.23	10.12	2.61	2.0	0.27	-10.21	30.00	40.21	-8.21	36.00	44.21
5795	-25.43	2.24	10.12	2.61	2.0	0.27	-10.20	30.00	40.20	-8.20	36.00	44.20

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 7, 2016
Temperature / Humidity	24deg. C / 51 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11ac-80

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5210	-26.11	2.13	10.13	3.46	2.0	0.00	-10.39	11.00	21.39	-8.39	17.00	25.39
5290	-26.84	2.15	10.13	3.46	2.0	0.00	-11.10	11.00	22.10	-9.10	17.00	26.10
5530	-26.72	2.19	10.14	3.46	2.0	0.00	-10.93	11.00	21.93	-8.93	17.00	25.93
5610	-27.08	2.20	10.13	3.46	2.0	0.00	-11.29	11.00	22.29	-9.29	17.00	26.29
5690	-26.26	2.22	10.12	3.46	2.0	0.00	-10.46	11.00	21.46	-8.46	17.00	25.46
5775	-28.99	2.23	10.12	3.46	2.0	0.27	-12.91	30.00	42.91	-10.91	36.00	46.91

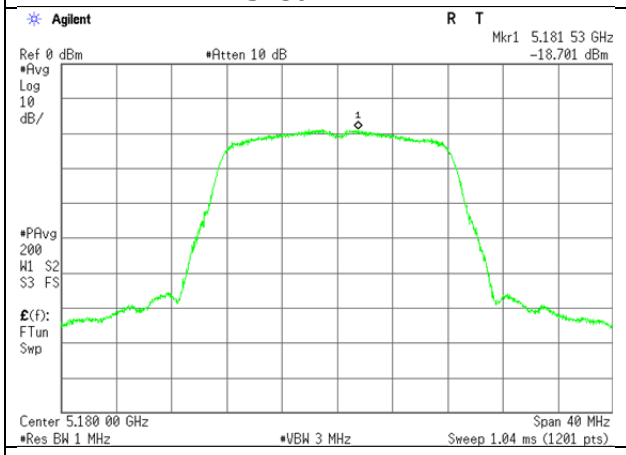
Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

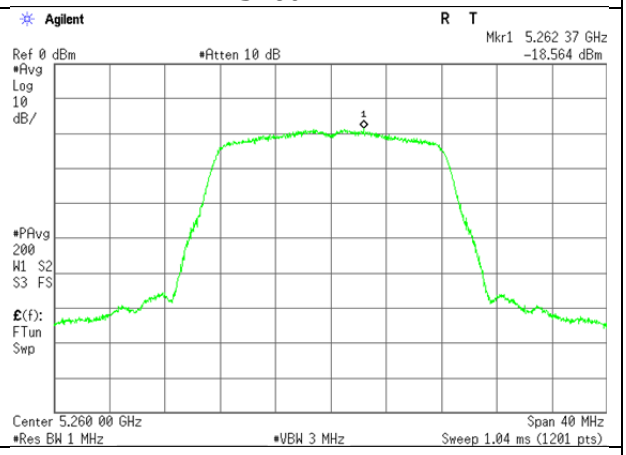
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11a

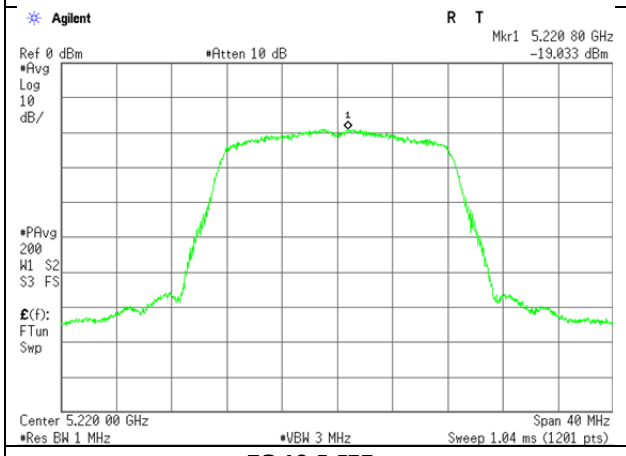
5180 MHz



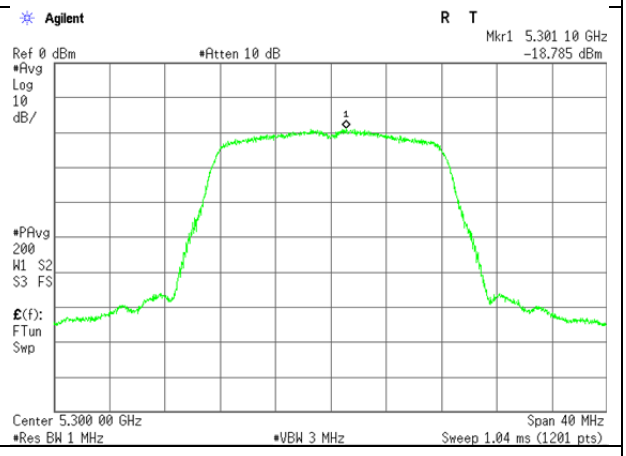
5260 MHz



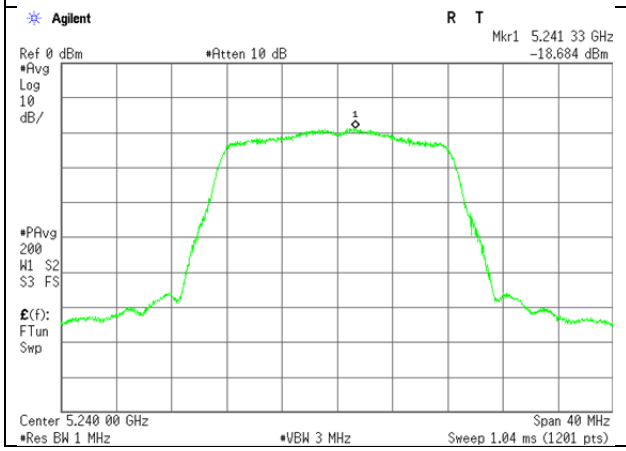
5220 MHz



5300 MHz



5240 MHz

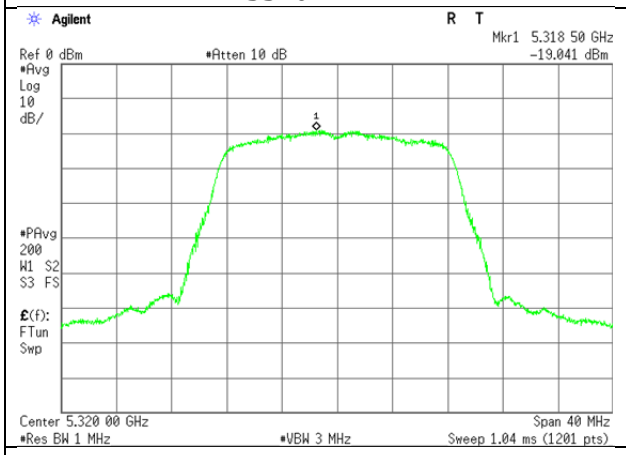


Maximum Power Spectral Density

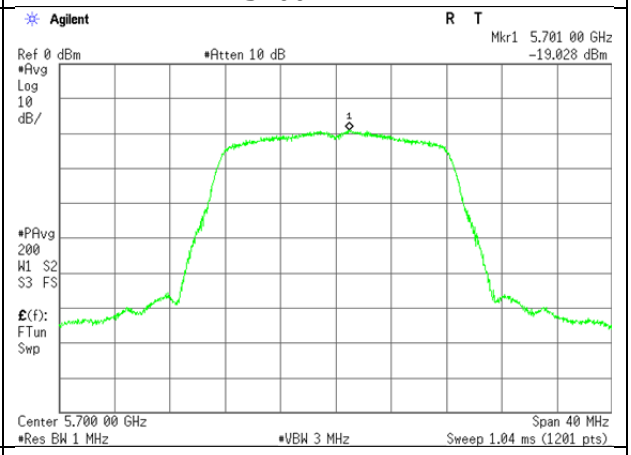
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11a

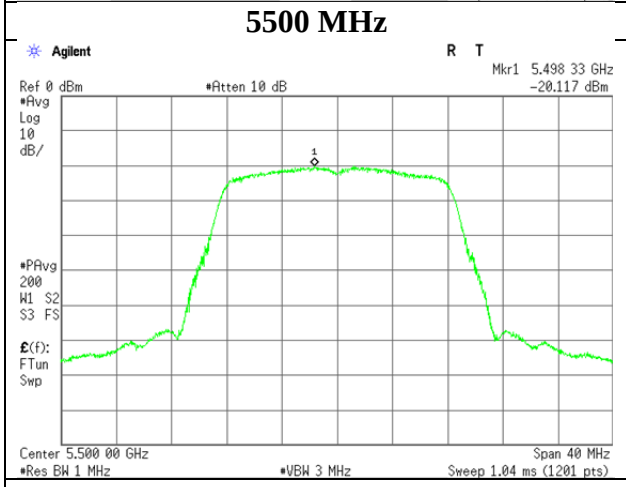
5320 MHz



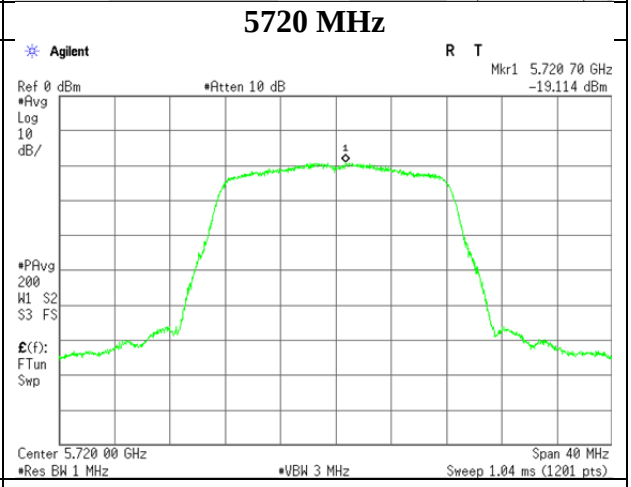
5700 MHz



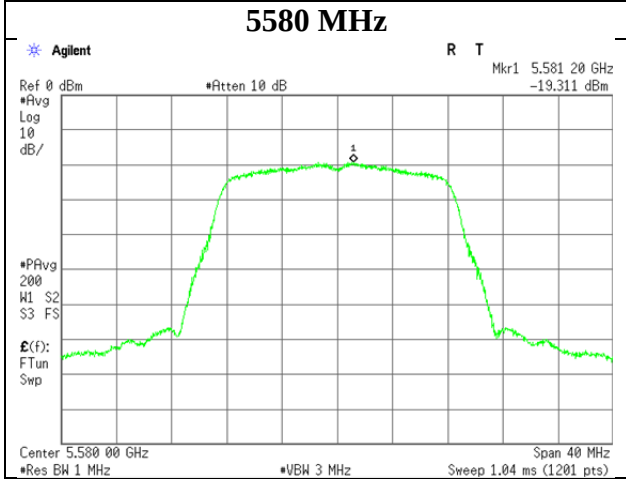
5500 MHz



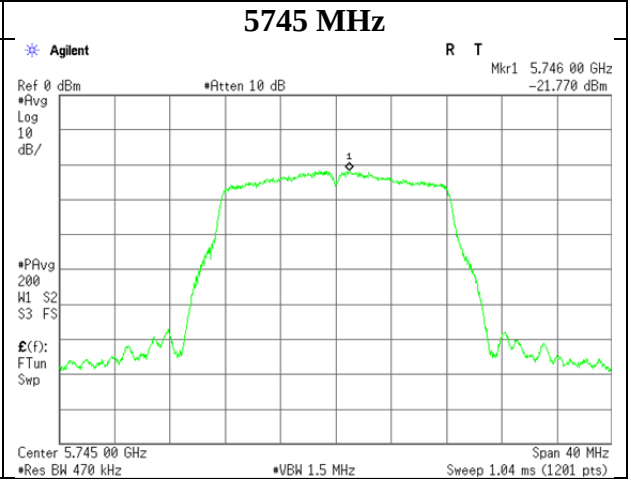
5720 MHz



5580 MHz



5745 MHz

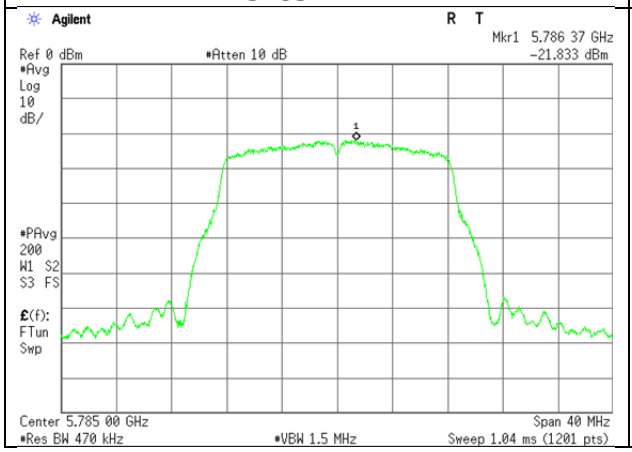


Maximum Power Spectral Density

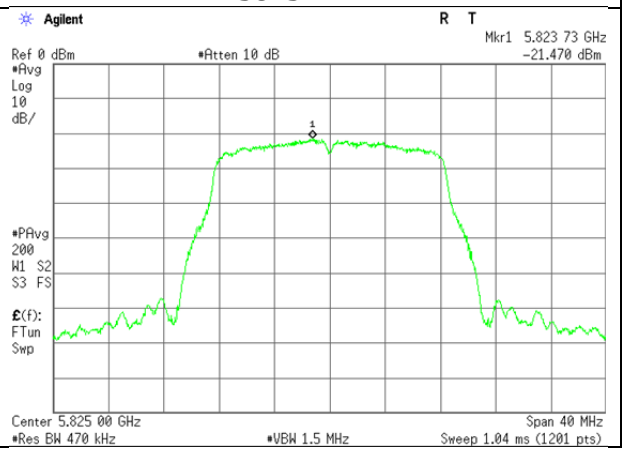
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11a

5785 MHz



5825 MHz

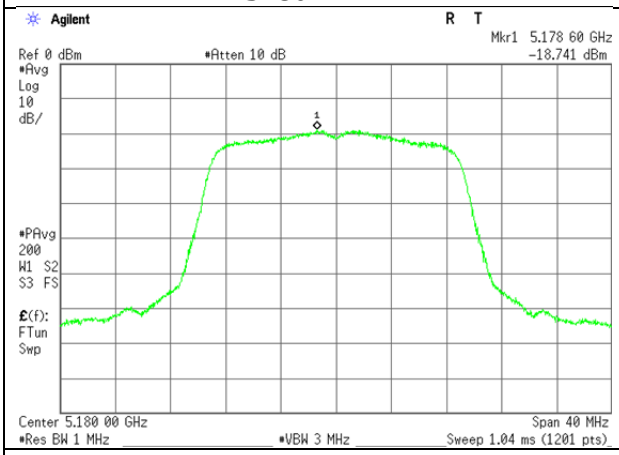


Maximum Power Spectral Density

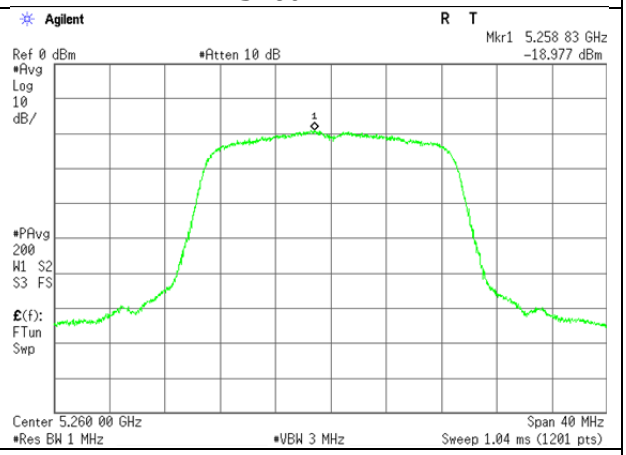
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11n-20

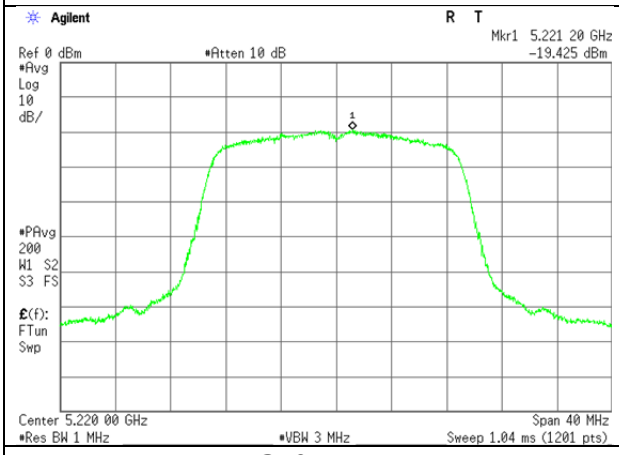
5180 MHz



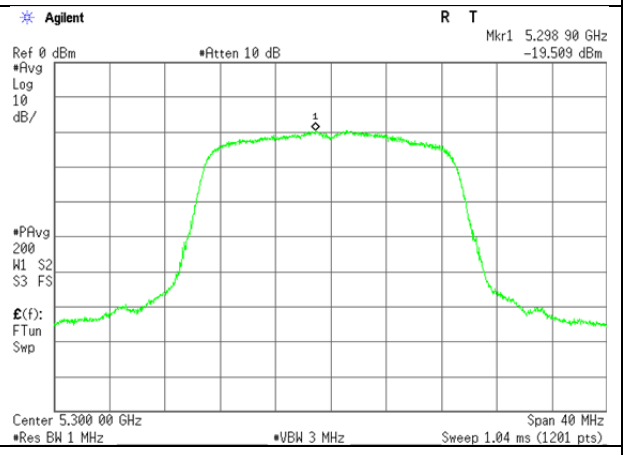
5260 MHz



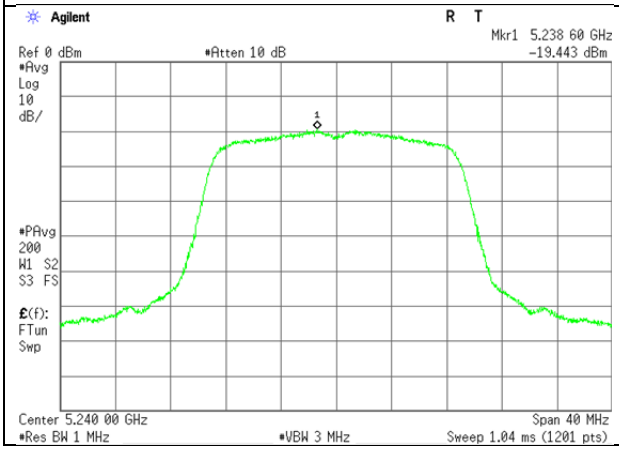
5220 MHz



5300 MHz



5240 MHz

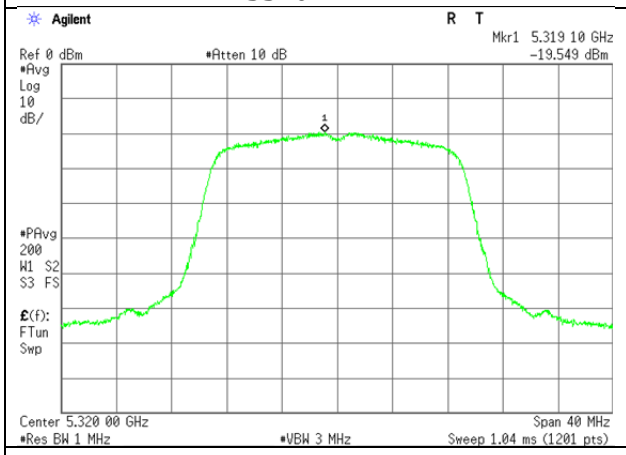


Maximum Power Spectral Density

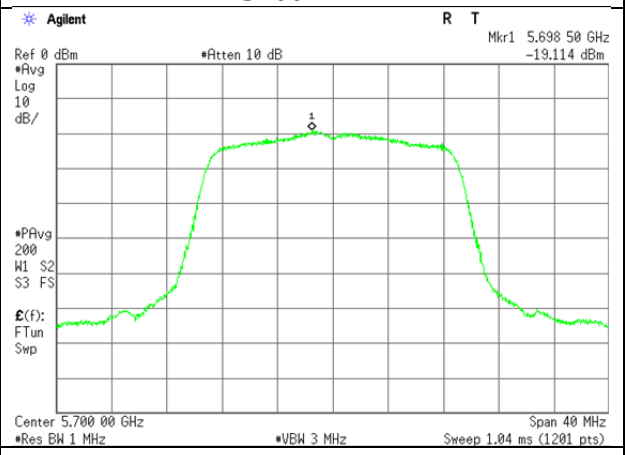
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11n-20

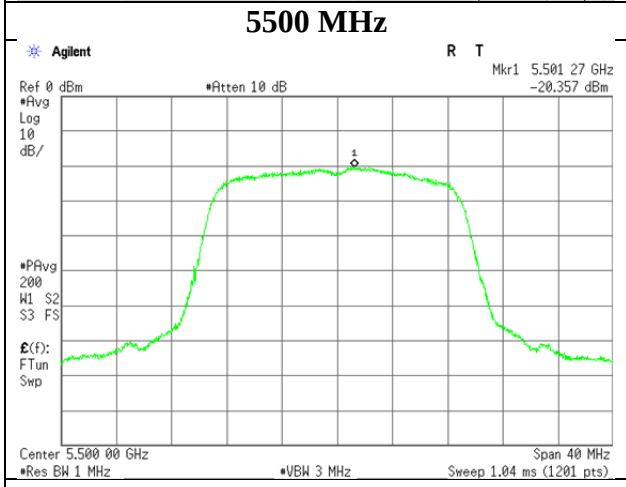
5320 MHz



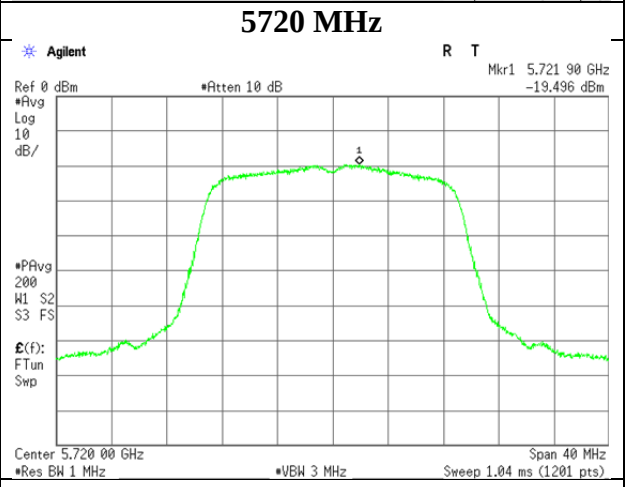
5700 MHz



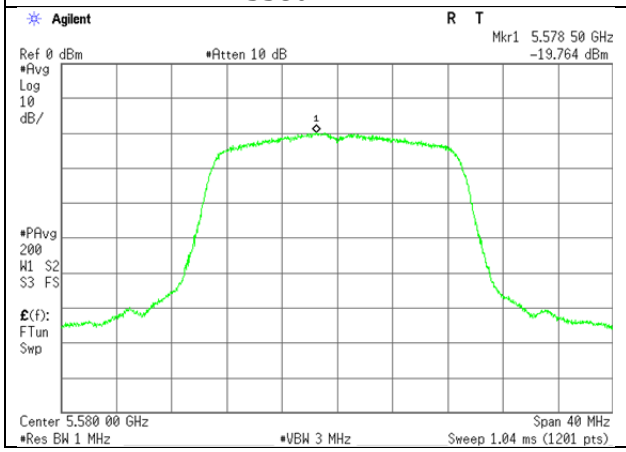
5500 MHz



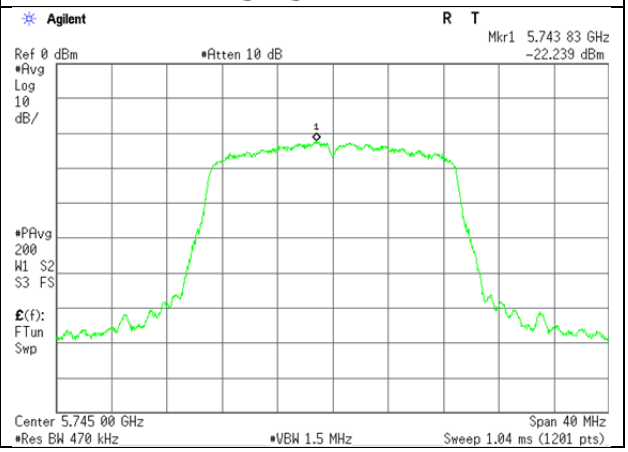
5720 MHz



5580 MHz



5745 MHz

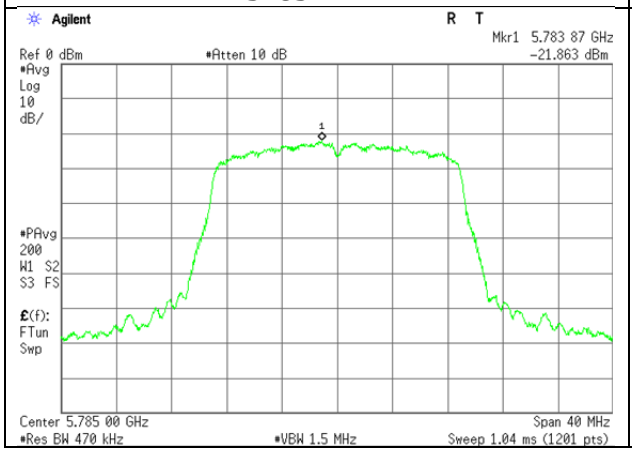


Maximum Power Spectral Density

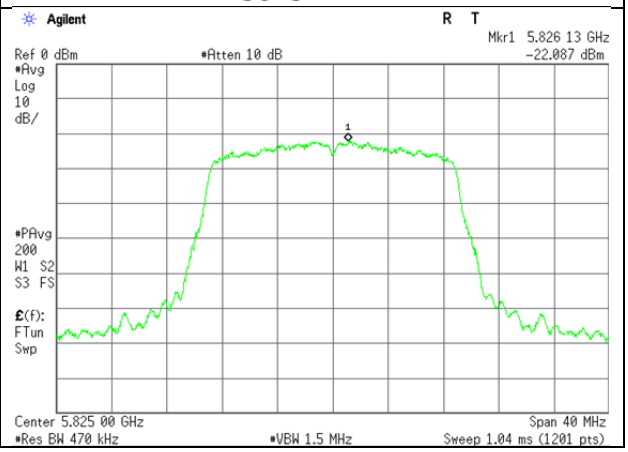
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11n-20

5785 MHz



5825 MHz

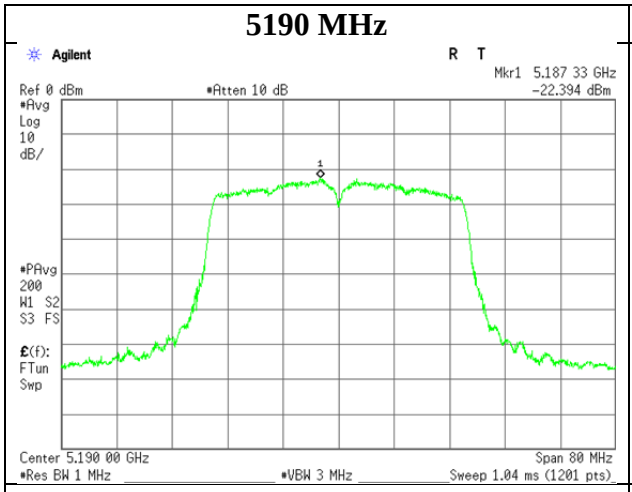


Maximum Power Spectral Density

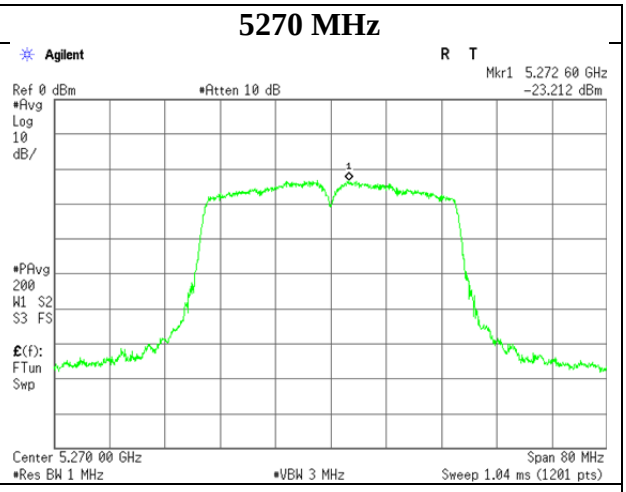
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11n-40

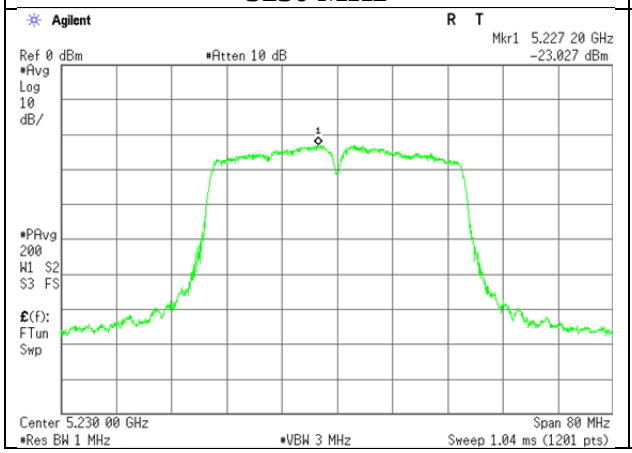
5190 MHz



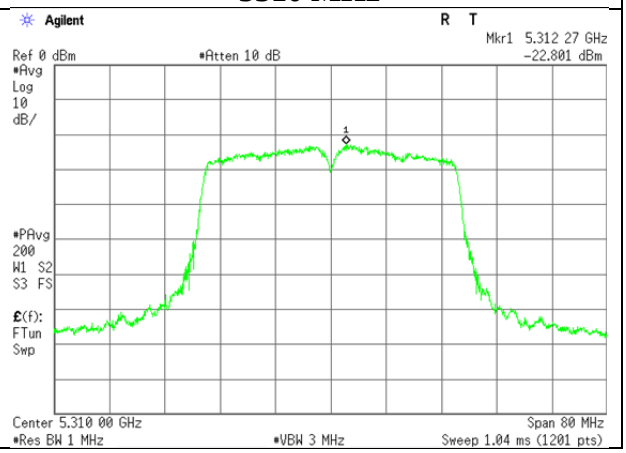
5270 MHz



5230 MHz



5310 MHz

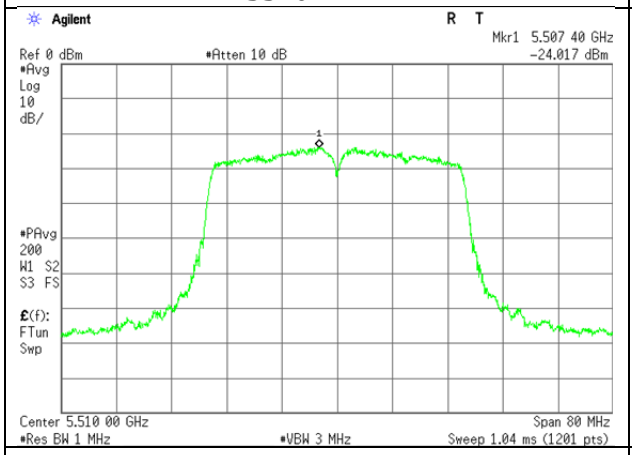


Maximum Power Spectral Density

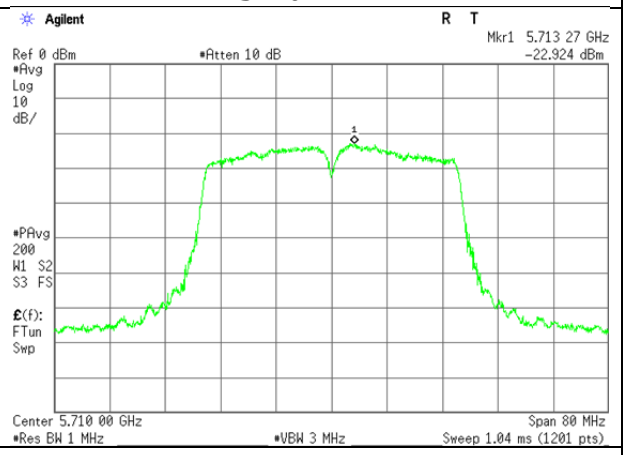
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11n-40

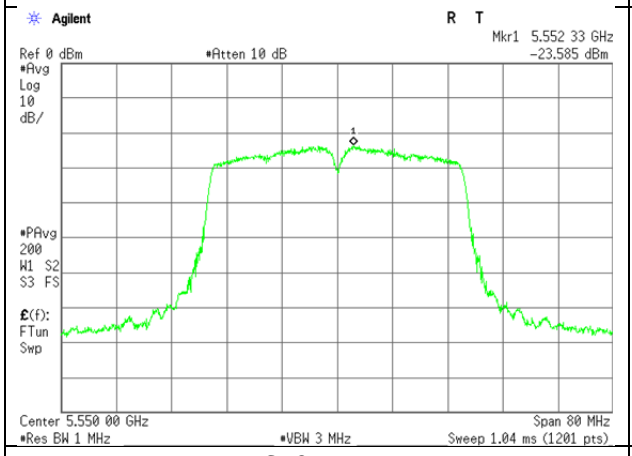
5510 MHz



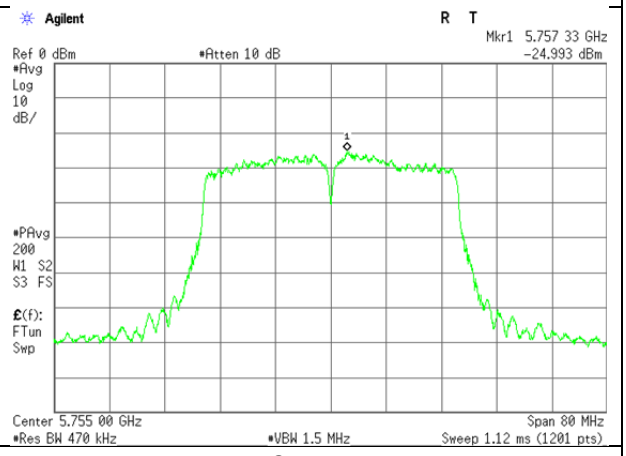
5710 MHz



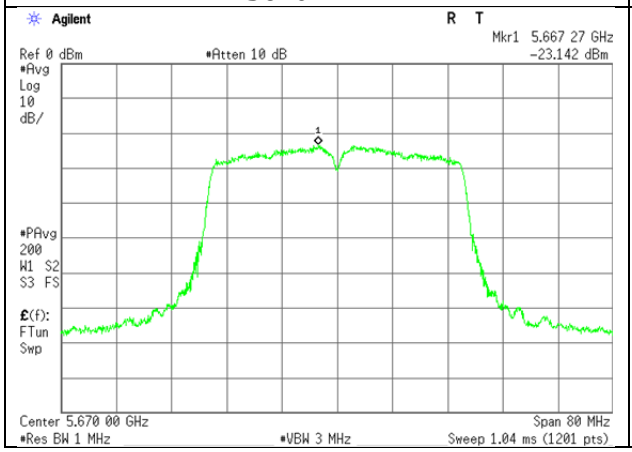
5550 MHz



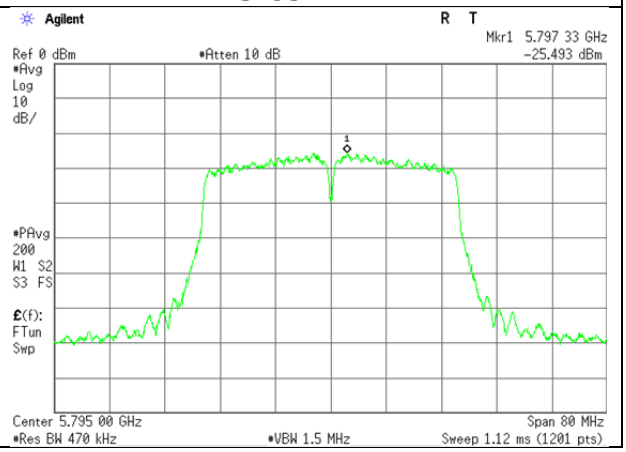
5755 MHz



5670 MHz



5795 MHz

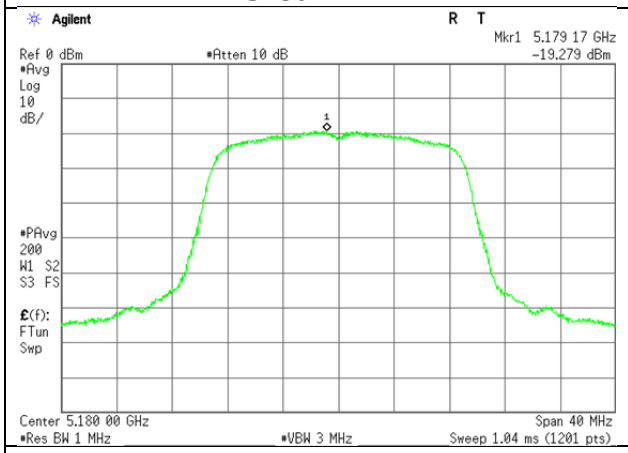


Maximum Power Spectral Density

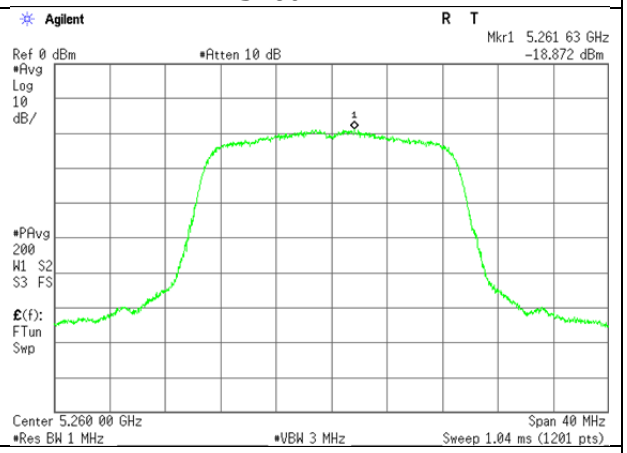
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-20

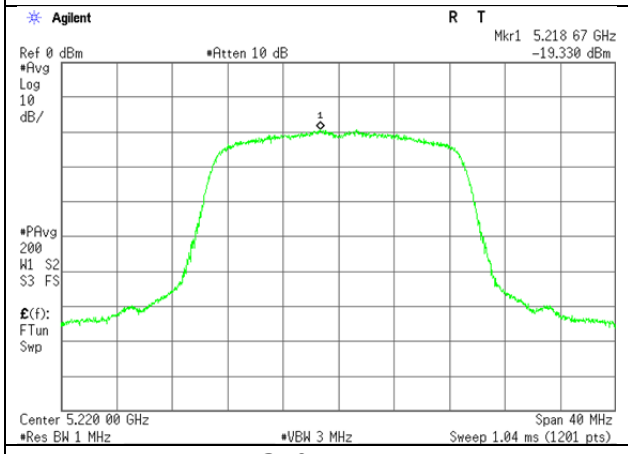
5180 MHz



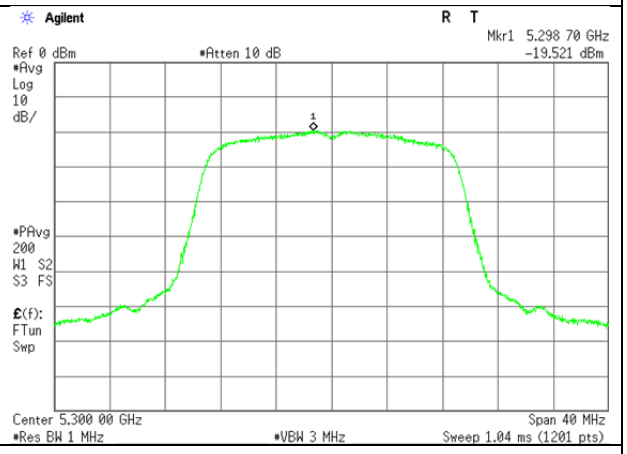
5260 MHz



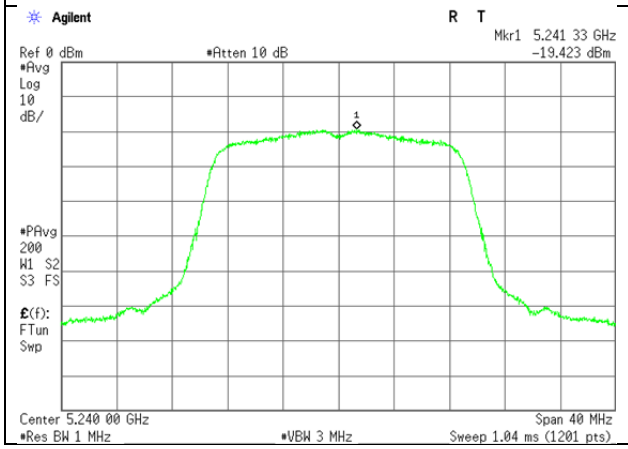
5220 MHz

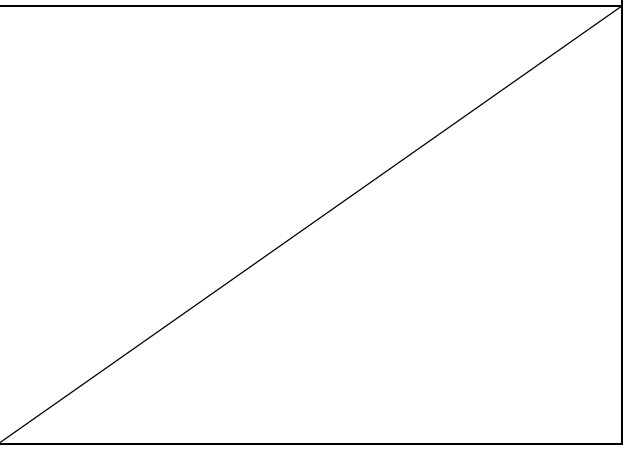


5300 MHz



5240 MHz



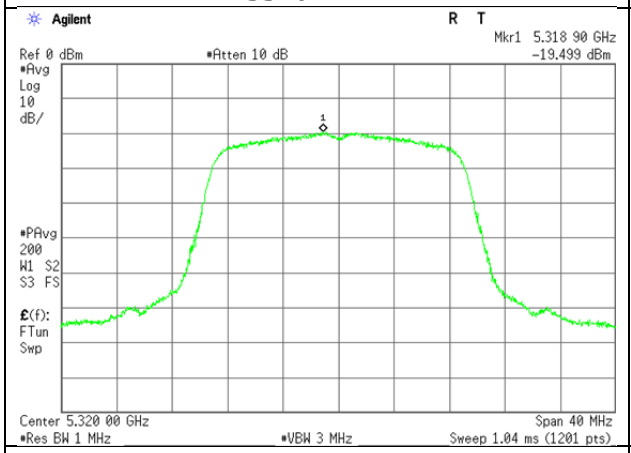


Maximum Power Spectral Density

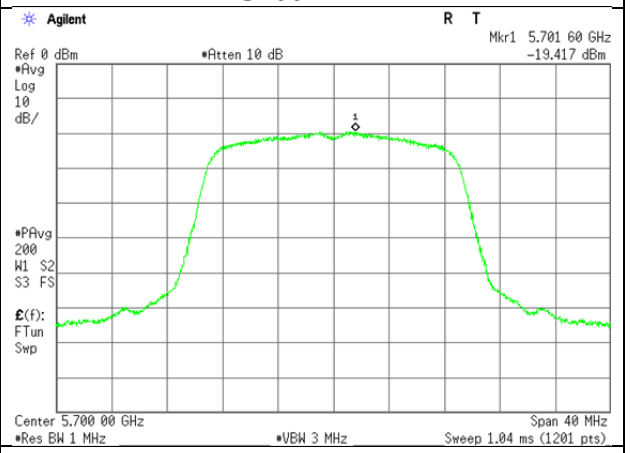
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-20

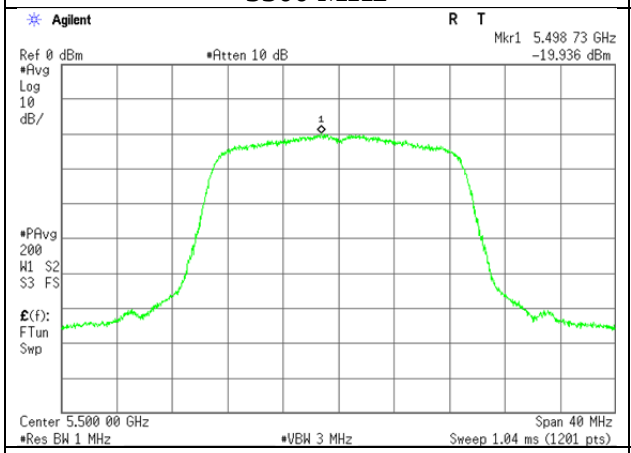
5320 MHz



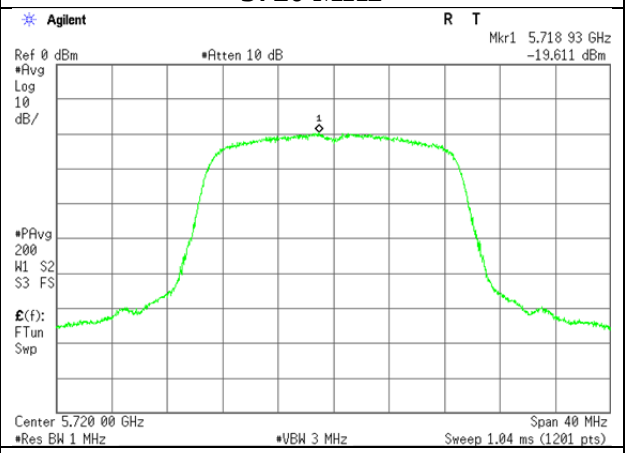
5700 MHz



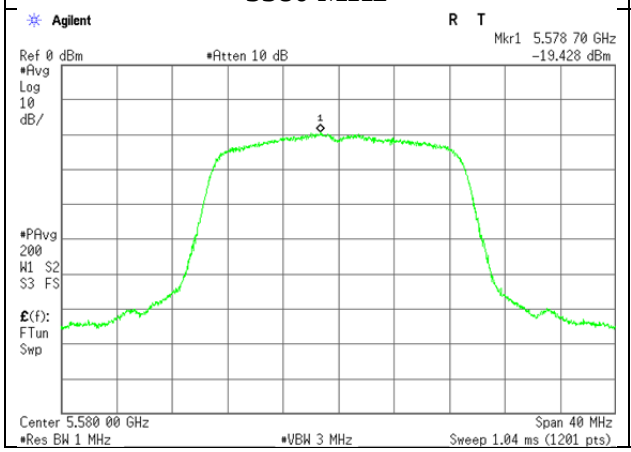
5500 MHz



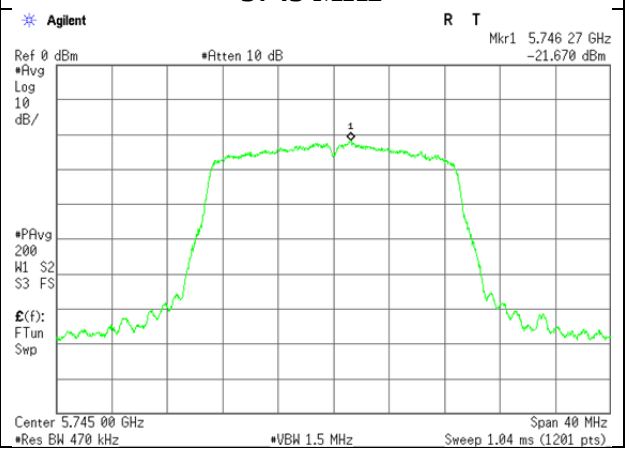
5720 MHz



5580 MHz



5745 MHz

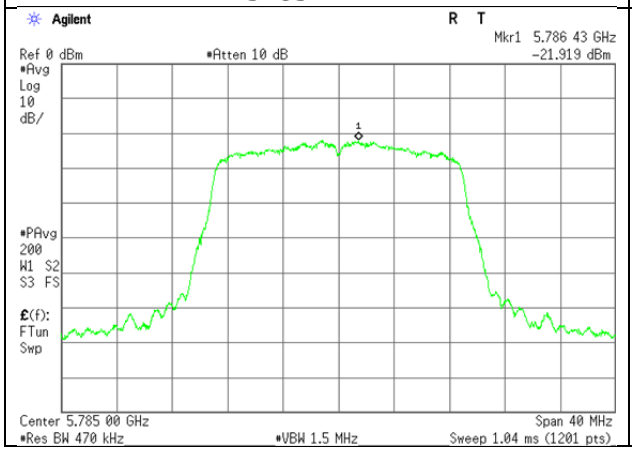


Maximum Power Spectral Density

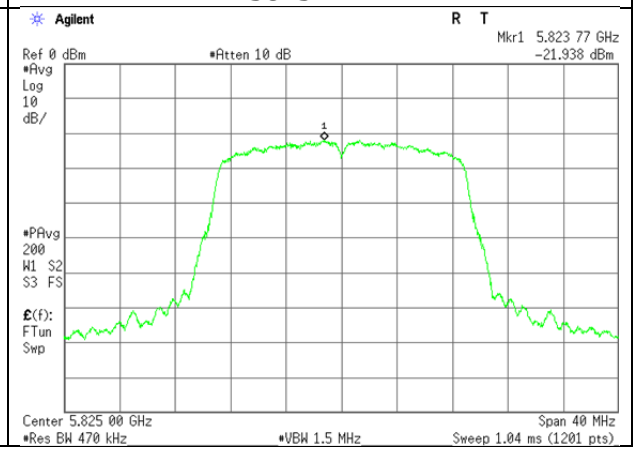
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-20

5785 MHz



5825 MHz

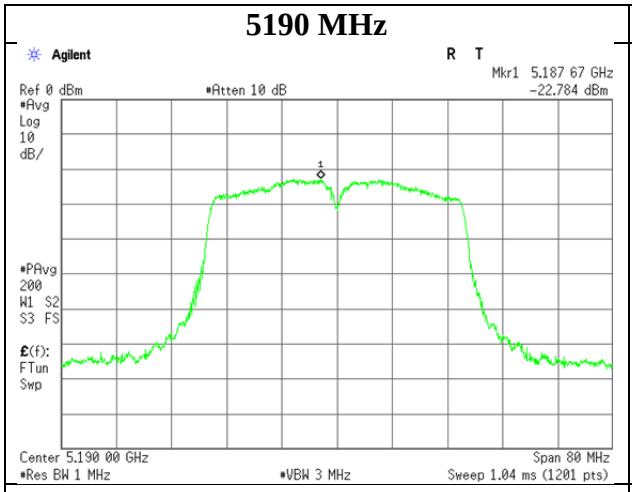


Maximum Power Spectral Density

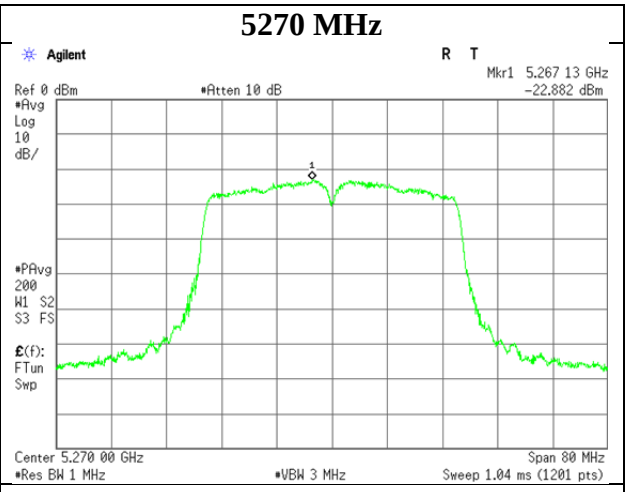
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 7, 2016
Temperature / Humidity	24deg. C / 51 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-40

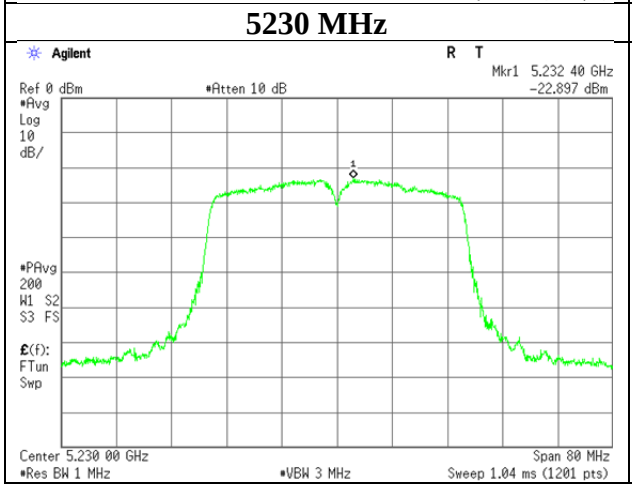
5190 MHz



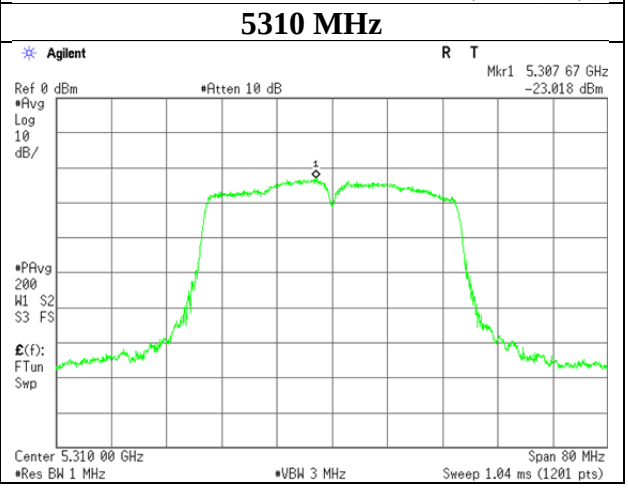
5270 MHz



5230 MHz



5310 MHz

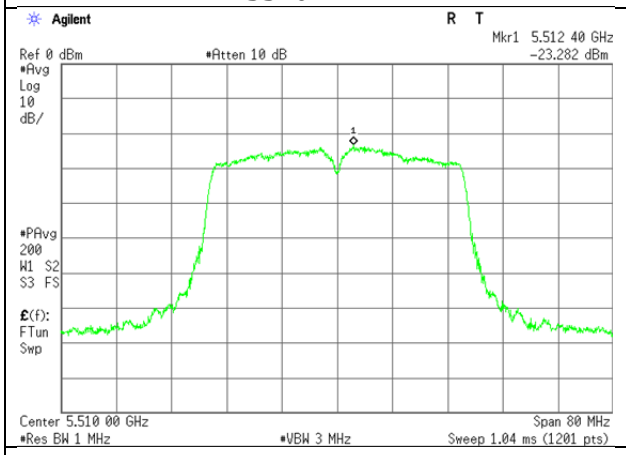


Maximum Power Spectral Density

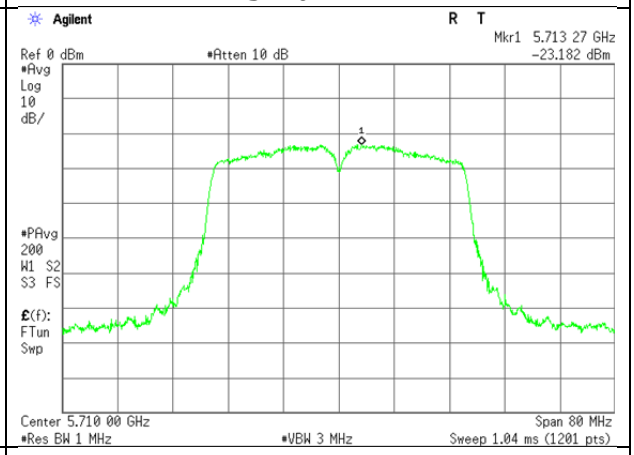
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 7, 2016
Temperature / Humidity	24deg. C / 51 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-40

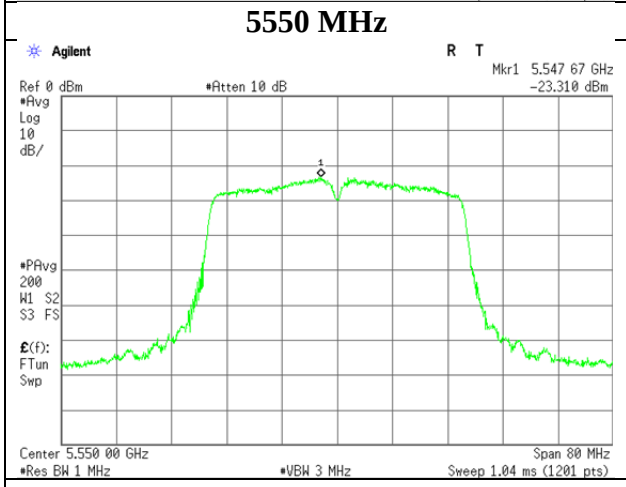
5510 MHz



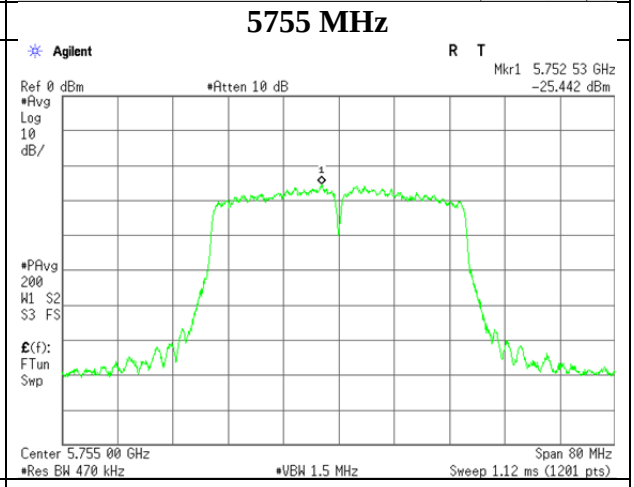
5710 MHz



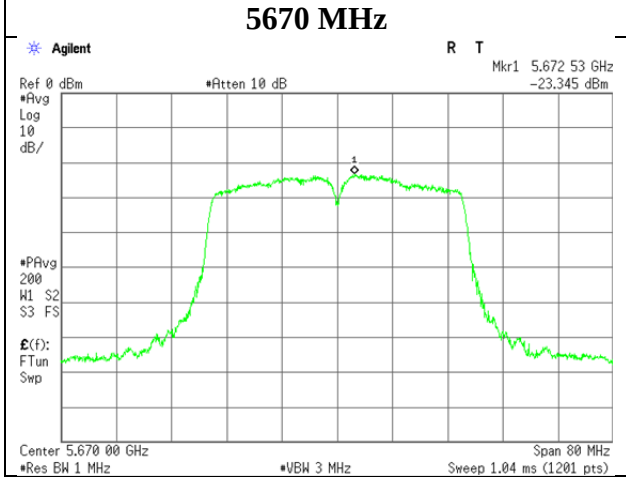
5550 MHz



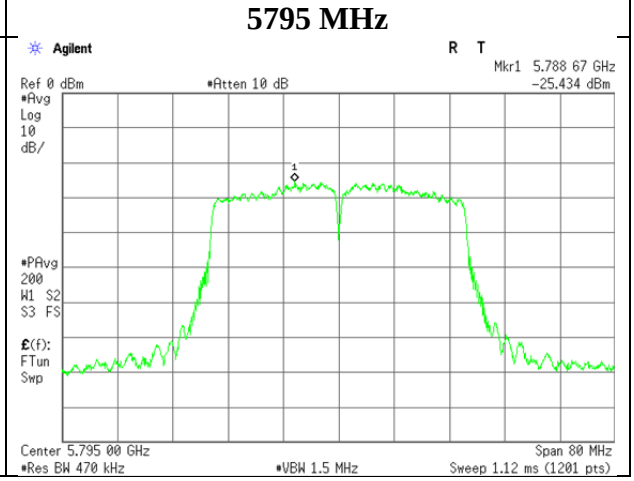
5755 MHz



5670 MHz



5795 MHz

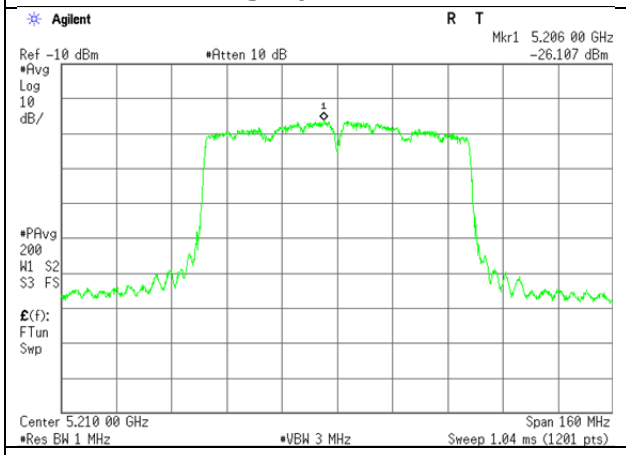


Maximum Power Spectral Density

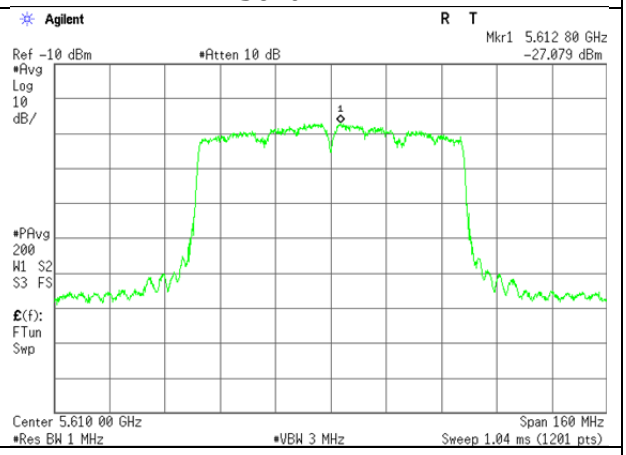
Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	October 7, 2016
Temperature / Humidity	24deg. C / 51 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx

11ac-80

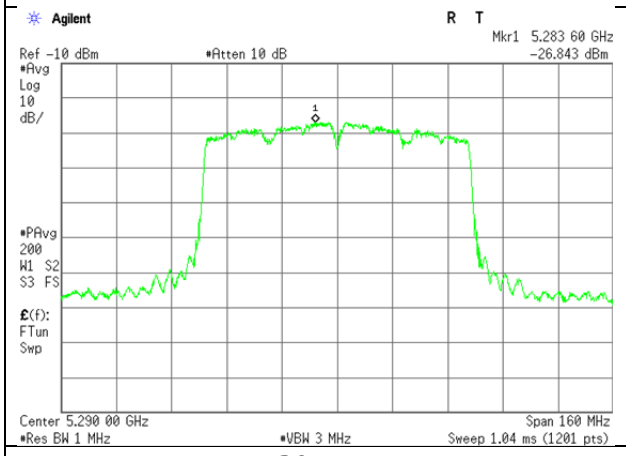
5210 MHz



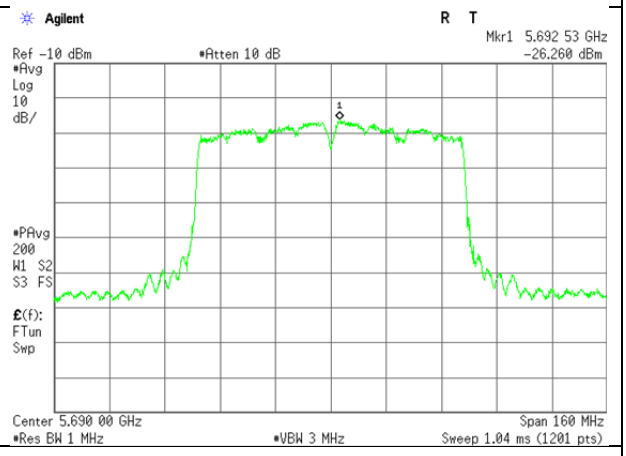
5610 MHz



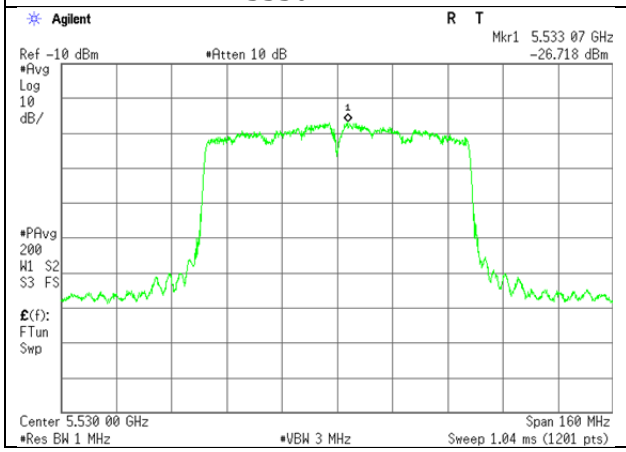
5290 MHz



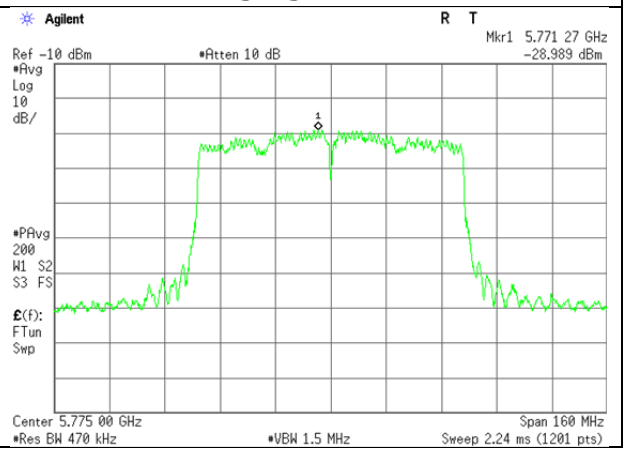
5690 MHz



5530 MHz



5775 MHz



Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5180 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	49.6	31.6	7.4	31.3	-	57.3	73.9	16.6	
Hori	10360.000	PK	42.7	38.7	-2.0	32.9	-	46.5	73.9	27.4	Floor noise
Hori	15540.000	PK	43.0	39.1	-0.6	32.7	-	48.8	73.9	25.1	Floor noise
Hori	20720.000	PK	43.8	37.4	-1.3	33.3	-	46.6	73.9	27.3	Floor noise
Hori	5150.000	AV	34.1	31.6	7.4	31.3	1.7	43.5	53.9	10.4	*1)
Hori	10360.000	AV	34.8	38.7	-2.0	32.9	-	38.6	53.9	15.3	Floor noise
Hori	15540.000	AV	34.4	39.1	-0.6	32.7	-	40.2	53.9	13.7	Floor noise
Hori	20720.000	AV	35.9	37.4	-1.3	33.3	-	38.7	53.9	15.2	Floor noise
Vert	5150.000	PK	50.5	31.6	7.4	31.3	-	58.2	73.9	15.7	
Vert	10360.000	PK	43.5	38.7	-2.0	32.9	-	47.3	73.9	26.6	Floor noise
Vert	15540.000	PK	42.8	39.1	-0.6	32.7	-	48.6	73.9	25.3	Floor noise
Vert	20720.000	PK	43.1	37.4	-1.3	33.3	-	45.9	73.9	28.0	Floor noise
Vert	5150.000	AV	30.8	31.6	7.4	31.3	1.7	40.2	53.9	13.7	*1)
Vert	10360.000	AV	34.8	38.7	-2.0	32.9	-	38.6	53.9	15.3	Floor noise
Vert	15540.000	AV	34.6	39.1	-0.6	32.7	-	40.4	53.9	13.5	Floor noise
Vert	20720.000	AV	34.7	37.4	-1.3	33.3	-	37.5	53.9	16.4	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

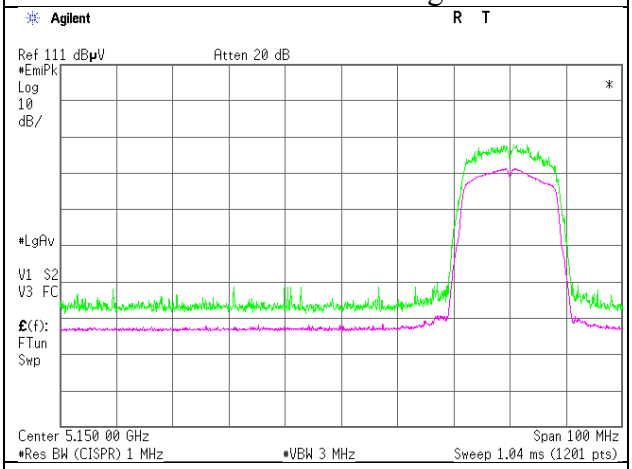
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5180 MHz

Horizontal

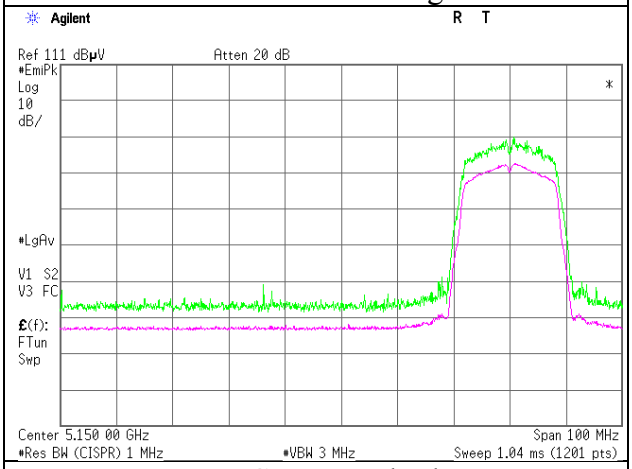
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5240 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	10480.000	PK	43.0	38.7	-2.0	32.9	-	46.8	73.9	27.1	Floor noise
Hori	15720.000	PK	43.4	38.6	-0.6	32.7	-	48.7	73.9	25.2	Floor noise
Hori	20960.000	PK	42.9	37.5	-1.2	33.3	-	45.9	73.9	28.0	Floor noise
Hori	10480.000	AV	34.5	38.7	-2.0	32.9	-	38.3	53.9	15.6	Floor noise
Hori	15720.000	AV	34.6	38.6	-0.6	32.7	-	39.9	53.9	14.0	Floor noise
Hori	20960.000	AV	34.0	37.5	-1.2	33.3	-	37.0	53.9	16.9	Floor noise
Vert	10480.000	PK	43.3	38.7	-2.0	32.9	-	47.1	73.9	26.8	Floor noise
Vert	15720.000	PK	43.2	38.6	-0.6	32.7	-	48.5	73.9	25.4	Floor noise
Vert	20960.000	PK	43.1	37.5	-1.2	33.3	-	46.1	73.9	27.8	Floor noise
Vert	10480.000	AV	34.6	38.7	-2.0	32.9	-	38.4	53.9	15.5	Floor noise
Vert	15720.000	AV	34.5	38.6	-0.6	32.7	-	39.8	53.9	14.1	Floor noise
Vert	20960.000	AV	34.0	37.5	-1.2	33.3	-	37.0	53.9	16.9	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5320 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	41.4	31.6	7.4	31.3	-	49.1	73.9	24.8	
Hori	10640.000	PK	42.7	39.0	-2.0	33.0	-	46.7	73.9	27.2	Floor noise
Hori	15960.000	PK	43.1	37.9	-0.6	32.7	-	47.7	73.9	26.2	Floor noise
Hori	21280.000	PK	43.4	37.7	-1.2	33.3	-	46.6	73.9	27.3	Floor noise
Hori	5350.000	AV	32.8	31.6	7.4	31.3	1.7	42.2	53.9	11.7	*1)
Hori	10640.000	AV	34.1	39.0	-2.0	33.0	-	38.1	53.9	15.8	Floor noise
Hori	15960.000	AV	34.3	37.9	-0.6	32.7	-	38.9	53.9	15.0	Floor noise
Hori	21280.000	AV	34.8	37.7	-1.2	33.3	-	38.0	53.9	15.9	Floor noise
Vert	5350.000	PK	41.7	31.6	7.4	31.3	-	49.4	73.9	24.5	
Vert	10640.000	PK	43.0	39.0	-2.0	33.0	-	47.0	73.9	26.9	Floor noise
Vert	15960.000	PK	43.3	37.9	-0.6	32.7	-	47.9	73.9	26.0	Floor noise
Vert	21280.000	PK	43.2	37.7	-1.2	33.3	-	46.4	73.9	27.5	Floor noise
Vert	5350.000	AV	32.9	31.6	7.4	31.3	1.7	42.3	53.9	11.6	*1)
Vert	10640.000	AV	34.0	39.0	-2.0	33.0	-	38.0	53.9	15.9	Floor noise
Vert	15960.000	AV	34.3	37.9	-0.6	32.7	-	38.9	53.9	15.0	Floor noise
Vert	21280.000	AV	35.1	37.7	-1.2	33.3	-	38.3	53.9	15.6	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

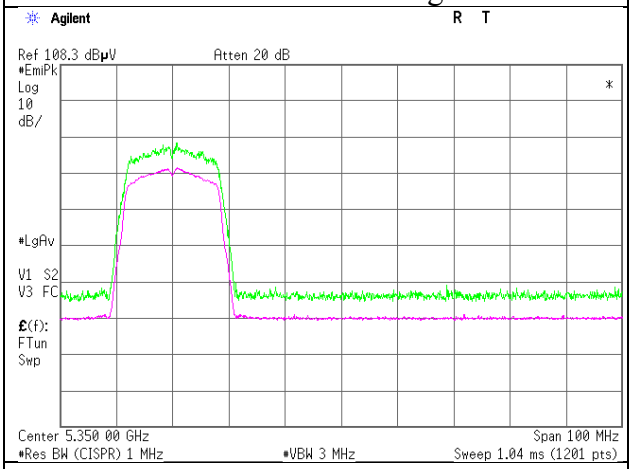
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5320 MHz

Horizontal

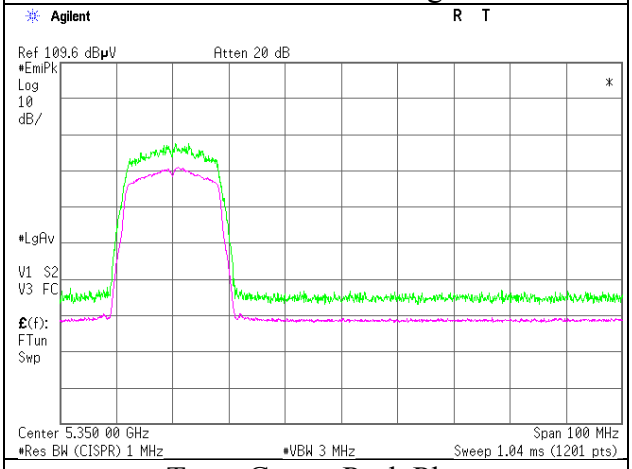
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5500 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5460.000	PK	41.7	31.7	7.5	31.4	-	49.5	73.9	24.4	
Hori	5470.000	PK	41.9	31.7	7.5	31.4	-	49.7	73.9	24.2	
Hori	11000.000	PK	42.8	39.8	-1.9	33.0	-	47.7	73.9	26.2	Floor noise
Hori	16500.000	PK	43.2	39.6	-0.6	32.6	-	49.6	73.9	24.3	Floor noise
Hori	22000.000	PK	43.3	38.1	-1.1	33.3	-	47.0	73.9	26.9	Floor noise
Hori	5460.000	AV	30.6	31.7	7.5	31.4	1.7	40.1	53.9	13.8	*1)
Hori	11000.000	AV	34.2	39.8	-1.9	33.0	-	39.1	53.9	14.8	Floor noise
Hori	16500.000	AV	34.4	39.6	-0.6	32.6	-	40.8	53.9	13.1	Floor noise
Hori	22000.000	AV	35.1	38.1	-1.1	33.3	-	38.8	53.9	15.1	Floor noise
Vert	5460.000	PK	42.3	31.7	7.5	31.4	-	50.1	73.9	23.8	
Vert	5470.000	PK	41.6	31.7	7.5	31.4	-	49.4	73.9	24.5	
Vert	11000.000	PK	42.7	39.8	-1.9	33.0	-	47.6	73.9	26.3	Floor noise
Vert	16500.000	PK	42.9	39.6	-0.6	32.6	-	49.3	73.9	24.6	Floor noise
Vert	22000.000	PK	43.6	38.1	-1.1	33.3	-	47.3	73.9	26.6	Floor noise
Vert	5460.000	AV	32.3	31.7	7.5	31.4	1.7	41.8	53.9	12.1	*1)
Vert	11000.000	AV	34.3	39.8	-1.9	33.0	-	39.2	53.9	14.7	Floor noise
Vert	16500.000	AV	34.3	39.6	-0.6	32.6	-	40.7	53.9	13.2	Floor noise
Vert	22000.000	AV	35.2	38.1	-1.1	33.3	-	38.9	53.9	15.0	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

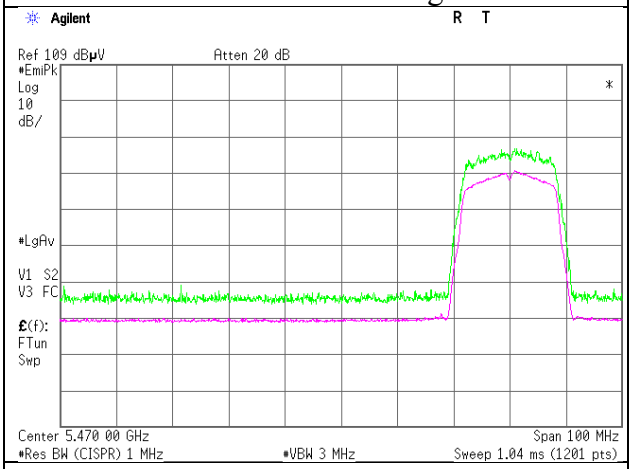
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5500 MHz

Horizontal

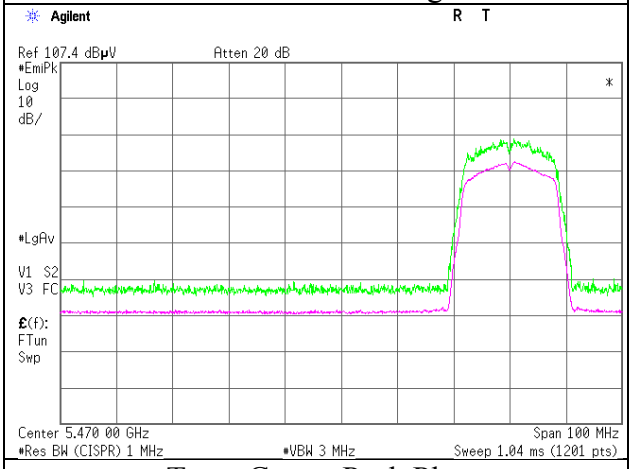
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5580 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	11160.000	PK	43.1	39.9	-1.9	33.1	-	48.0	73.9	25.9	Floor noise
Hori	16740.000	PK	44.0	40.5	-0.5	32.6	-	51.4	73.9	22.5	Floor noise
Hori	22320.000	PK	43.9	38.2	-1.0	33.4	-	47.7	73.9	26.2	Floor noise
Hori	11160.000	AV	34.8	39.9	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Hori	16740.000	AV	34.4	40.5	-0.5	32.6	-	41.8	53.9	12.1	Floor noise
Hori	22320.000	AV	35.4	38.2	-1.0	33.4	-	39.2	53.9	14.7	Floor noise
Vert	11160.000	PK	43.3	39.9	-1.9	33.1	-	48.2	73.9	25.7	Floor noise
Vert	16740.000	PK	43.6	40.5	-0.5	32.6	-	51.0	73.9	22.9	Floor noise
Vert	22320.000	PK	43.4	38.2	-1.0	33.4	-	47.2	73.9	26.7	Floor noise
Vert	11160.000	AV	34.9	39.9	-1.9	33.1	-	39.8	53.9	14.1	Floor noise
Vert	16740.000	AV	34.4	40.5	-0.5	32.6	-	41.8	53.9	12.1	Floor noise
Vert	22320.000	AV	35.3	38.2	-1.0	33.4	-	39.1	53.9	14.8	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5700 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5725.000	PK	45.0	32.2	7.6	31.4	-	53.4	73.9	20.5	
Hori	11400.000	PK	43.5	40.2	-1.9	33.1	-	48.7	73.9	25.2	Floor noise
Hori	17100.000	PK	44.1	41.7	-0.5	32.6	-	52.7	73.9	21.2	Floor noise
Hori	22800.000	PK	44.6	38.5	-0.8	33.5	-	48.8	73.9	25.1	Floor noise
Hori	5725.000	AV	32.6	32.2	7.6	31.4	1.7	42.7	53.9	11.2	*1)
Hori	11400.000	AV	34.5	40.2	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Hori	17100.000	AV	34.7	41.7	-0.5	32.6	-	43.3	53.9	10.6	Floor noise
Hori	22800.000	AV	35.7	38.5	-0.8	33.5	-	39.9	53.9	14.0	Floor noise
Vert	5725.000	PK	43.9	32.2	7.6	31.4	-	52.3	73.9	21.6	
Vert	11400.000	PK	43.9	40.2	-1.9	33.1	-	49.1	73.9	24.8	Floor noise
Vert	17100.000	PK	44.3	41.7	-0.5	32.6	-	52.9	73.9	21.0	Floor noise
Vert	22800.000	PK	43.4	38.5	-0.8	33.5	-	47.6	73.9	26.3	Floor noise
Vert	5725.000	AV	33.0	32.2	7.6	31.4	1.7	43.1	53.9	10.8	*1)
Vert	11400.000	AV	34.2	40.2	-1.9	33.1	-	39.4	53.9	14.5	Floor noise
Vert	17100.000	AV	34.5	41.7	-0.5	32.6	-	43.1	53.9	10.8	Floor noise
Vert	22800.000	AV	35.6	38.5	-0.8	33.5	-	39.8	53.9	14.1	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

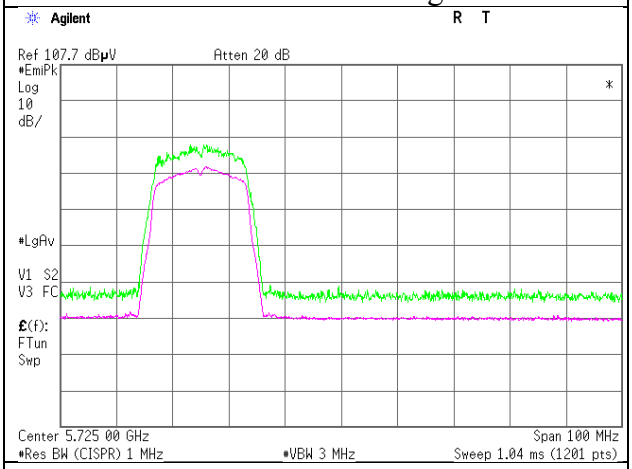
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5700 MHz

Horizontal

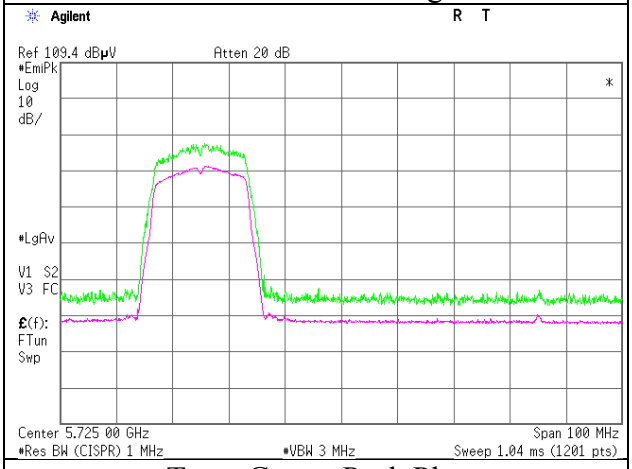
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5745 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5650.000	PK	41.2	32.0	7.5	31.4	-	49.3	68.2	18.9	
Hori	5700.000	PK	41.7	32.1	7.6	31.4	-	50.0	105.2	55.2	
Hori	5720.000	PK	42.0	32.2	7.6	31.4	-	50.4	110.8	60.4	
Hori	5725.000	PK	42.3	32.2	7.6	31.4	-	50.7	122.2	71.5	
Hori	11490.000	PK	43.4	40.3	-1.9	33.1	-	48.7	73.9	25.2	Floor noise
Hori	17235.000	PK	44.4	42.1	-0.4	32.6	-	53.5	73.9	20.4	Floor noise
Hori	22980.000	PK	43.8	38.5	-0.7	33.5	-	48.1	73.9	25.8	Floor noise
Hori	11490.000	AV	34.1	40.3	-1.9	33.1	-	39.4	53.9	14.5	Floor noise
Hori	17235.000	AV	34.2	42.1	-0.4	32.6	-	43.3	53.9	10.6	Floor noise
Hori	22980.000	AV	35.2	38.5	-0.7	33.5	-	39.5	53.9	14.4	Floor noise
Vert	5650.000	PK	41.6	32.0	7.5	31.4	-	49.7	68.2	18.5	
Vert	5700.000	PK	42.1	32.1	7.6	31.4	-	50.4	105.2	54.8	
Vert	5720.000	PK	42.2	32.2	7.6	31.4	-	50.6	110.8	60.2	
Vert	5725.000	PK	42.7	32.2	7.6	31.4	-	51.1	122.2	71.1	
Vert	11490.000	PK	43.2	40.3	-1.9	33.1	-	48.5	73.9	25.4	Floor noise
Vert	17235.000	PK	44.2	42.1	-0.4	32.6	-	53.3	73.9	20.6	Floor noise
Vert	22980.000	PK	43.9	38.5	-0.7	33.5	-	48.2	73.9	25.7	Floor noise
Vert	11490.000	AV	34.2	40.3	-1.9	33.1	-	39.5	53.9	14.4	Floor noise
Vert	17235.000	AV	34.4	42.1	-0.4	32.6	-	43.5	53.9	10.4	Floor noise
Vert	22980.000	AV	35.4	38.5	-0.7	33.5	-	39.7	53.9	14.2	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

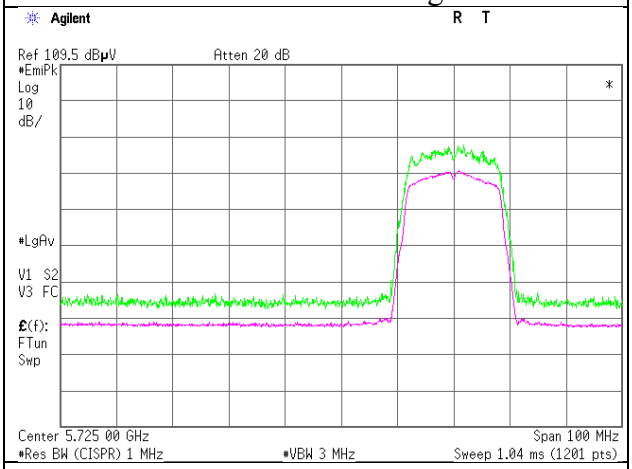
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5745 MHz

Horizontal

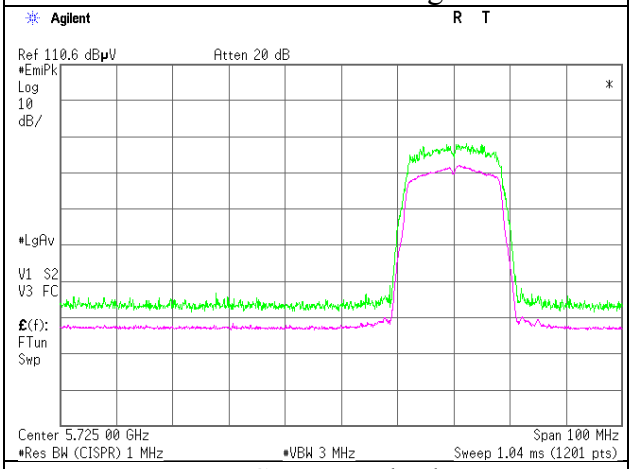
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5785 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	11570.000	PK	43.0	40.3	-1.9	33.1	-	48.3	73.9	25.6	Floor noise
Hori	17355.000	PK	43.7	42.5	-0.5	32.6	-	53.1	73.9	20.8	Floor noise
Hori	23140.000	PK	44.4	38.6	-0.7	33.4	-	48.9	73.9	25.0	Floor noise
Hori	11570.000	AV	34.3	40.3	-1.9	33.1	-	39.6	53.9	14.3	Floor noise
Hori	17355.000	AV	34.4	42.5	-0.5	32.6	-	43.8	53.9	10.1	Floor noise
Hori	23140.000	AV	35.9	38.6	-0.7	33.4	-	40.4	53.9	13.5	Floor noise
Vert	11570.000	PK	43.1	40.3	-1.9	33.1	-	48.4	73.9	25.5	Floor noise
Vert	17355.000	PK	44.1	42.5	-0.5	32.6	-	53.5	73.9	20.4	Floor noise
Vert	23140.000	PK	43.9	38.6	-0.7	33.4	-	48.4	73.9	25.5	Floor noise
Vert	11570.000	AV	34.0	40.3	-1.9	33.1	-	39.3	53.9	14.6	Floor noise
Vert	17355.000	AV	34.3	42.5	-0.5	32.6	-	43.7	53.9	10.2	Floor noise
Vert	23140.000	AV	35.7	38.6	-0.7	33.4	-	40.2	53.9	13.7	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber			
Report No.	11469126H			
Date	October 3, 2016	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 72 % RH	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takumi Shimada (Below1 GHz)	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5825 MHz			

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	56.433	QP	20.1	8.6	7.7	32.1	-	4.3	40.0	35.7	
Hori	92.872	QP	20.2	8.8	8.2	32.1	-	5.1	43.5	38.4	
Hori	116.639	QP	20.4	12.4	8.4	32.0	-	9.2	43.5	34.3	
Hori	240.479	QP	21.2	12.1	9.5	31.9	-	10.9	46.0	35.1	
Hori	344.691	QP	20.1	14.5	10.1	31.9	-	12.8	46.0	33.2	
Hori	952.838	QP	19.1	22.1	13.3	30.9	-	23.6	46.0	22.4	
Hori	5850.000	PK	50.0	32.5	7.6	31.5	-	58.6	122.2	63.6	
Hori	5855.000	PK	49.0	32.5	7.6	31.5	-	57.6	110.8	53.2	
Hori	5875.000	PK	46.2	32.5	7.6	31.5	-	54.8	105.2	50.4	
Hori	5925.000	PK	43.6	32.6	7.6	31.5	-	52.3	68.2	15.9	
Hori	11650.000	PK	42.8	40.3	-1.9	33.1	-	48.1	73.9	25.8	Floor noise
Hori	17475.000	PK	42.9	42.9	-0.5	32.6	-	52.7	73.9	21.2	Floor noise
Hori	23300.000	PK	44.0	38.7	-0.8	33.4	-	48.5	73.9	25.4	Floor noise
Hori	11650.000	AV	34.2	40.3	-1.9	33.1	-	39.5	53.9	14.4	Floor noise
Hori	17475.000	AV	34.2	42.9	-0.5	32.6	-	44.0	53.9	9.9	Floor noise
Hori	23300.000	AV	35.6	38.7	-0.8	33.4	-	40.1	53.9	13.8	Floor noise
Vert	56.433	QP	21.8	8.6	7.7	32.1	-	6.0	40.0	34.0	
Vert	92.872	QP	22.0	8.8	8.2	32.1	-	6.9	43.5	36.6	
Vert	116.639	QP	22.7	12.4	8.4	32.0	-	11.5	43.5	32.0	
Vert	240.479	QP	21.3	12.1	9.5	31.9	-	11.0	46.0	35.0	
Vert	344.691	QP	19.8	14.5	10.1	31.9	-	12.5	46.0	33.5	
Vert	952.838	QP	19.2	22.1	13.3	30.9	-	23.7	46.0	22.3	
Vert	5850.000	PK	51.4	32.5	7.6	31.5	-	60.0	122.2	62.2	
Vert	5855.000	PK	51.0	32.5	7.6	31.5	-	59.6	110.8	51.2	
Vert	5875.000	PK	48.4	32.5	7.6	31.5	-	57.0	105.2	48.2	
Vert	5925.000	PK	47.1	32.6	7.6	31.5	-	55.8	68.2	12.4	
Vert	11650.000	PK	42.8	40.3	-1.9	33.1	-	48.1	73.9	25.8	Floor noise
Vert	17475.000	PK	42.7	42.9	-0.5	32.6	-	52.5	73.9	21.4	Floor noise
Vert	23300.000	PK	44.3	38.7	-0.8	33.4	-	48.8	73.9	25.1	Floor noise
Vert	11650.000	AV	34.3	40.3	-1.9	33.1	-	39.6	53.9	14.3	Floor noise
Vert	17475.000	AV	34.3	42.9	-0.5	32.6	-	44.1	53.9	9.8	Floor noise
Vert	23300.000	AV	35.7	38.7	-0.8	33.4	-	40.2	53.9	13.7	Floor noise

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

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

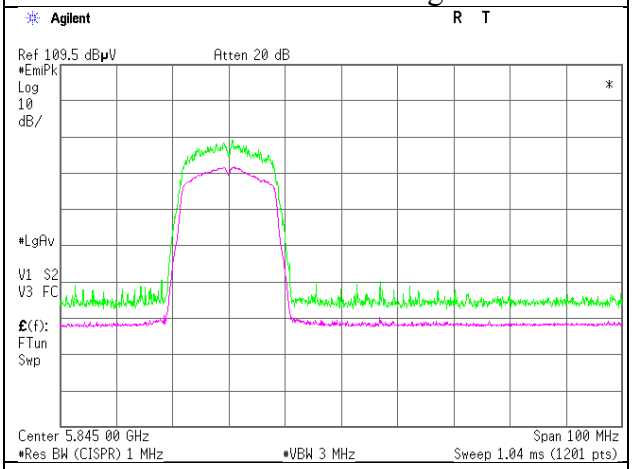
Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11a 5825 MHz

Horizontal

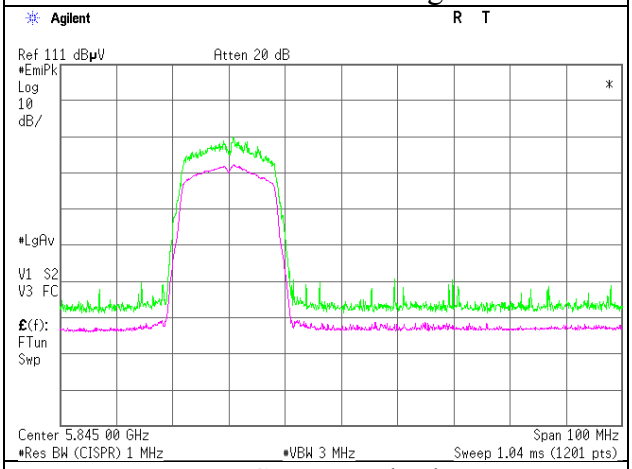
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5180 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	42.1	31.6	7.4	31.3	-	49.8	73.9	24.1	
Hori	5150.000	AV	33.0	31.6	7.4	31.3	1.8	42.5	53.9	11.4	*1)
Vert	5150.000	PK	41.5	31.6	7.4	31.3	-	49.2	73.9	24.7	
Vert	5150.000	AV	30.7	31.6	7.4	31.3	1.8	40.2	53.9	13.7	*1)

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

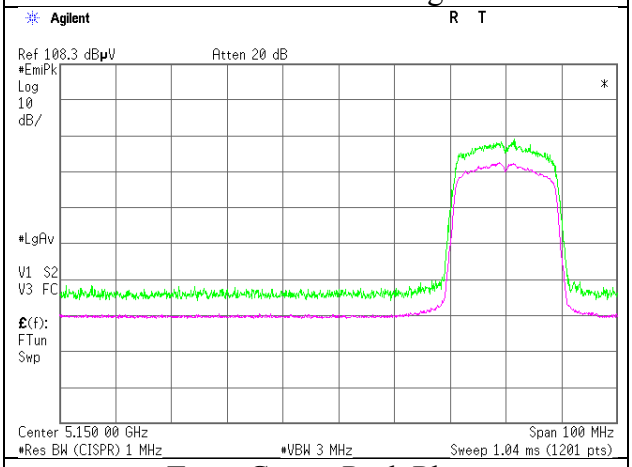
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5180 MHz

Horizontal

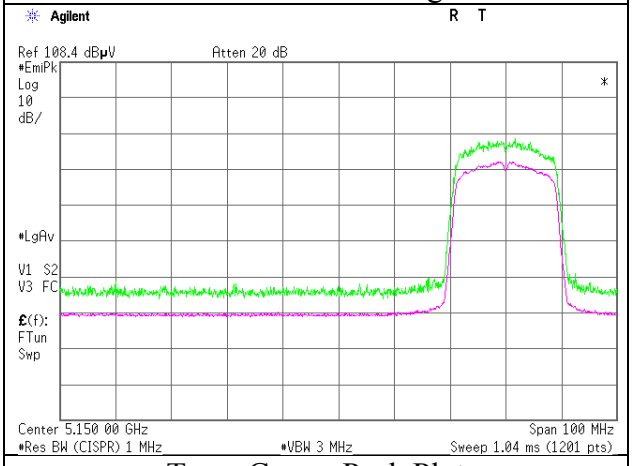
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5320 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	41.4	31.6	7.4	31.3	-	49.1	73.9	24.8	
Hori	5350.000	AV	33.4	31.6	7.4	31.3	1.8	42.9	53.9	11.0	*1)
Vert	5350.000	PK	42.0	31.6	7.4	31.3	-	49.7	73.9	24.2	
Vert	5350.000	AV	33.2	31.6	7.4	31.3	1.8	42.7	53.9	11.2	*1)

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

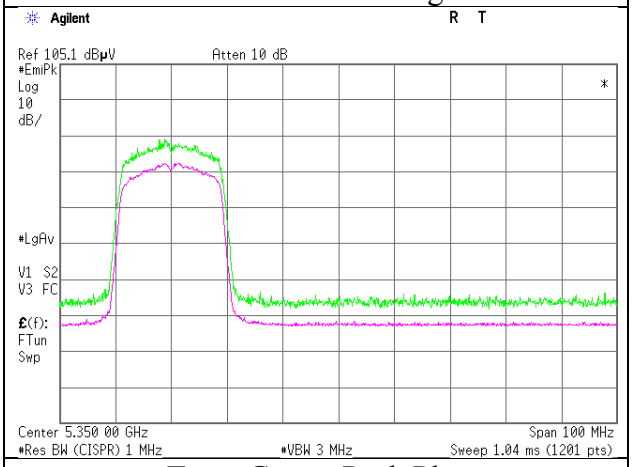
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5320 MHz

Horizontal

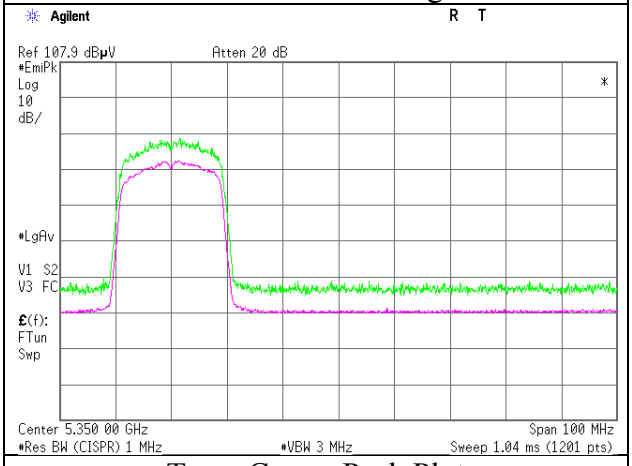
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5500 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5460.000	PK	41.5	31.7	7.5	31.4	-	49.3	73.9	24.6	
Hori	5470.000	PK	41.7	31.7	7.5	31.4	-	49.5	73.9	24.4	
Hori	5460.000	AV	32.9	31.7	7.5	31.4	1.8	42.5	53.9	11.4	*1)
Vert	5460.000	PK	41.4	31.7	7.5	31.4	-	49.2	73.9	24.7	
Vert	5470.000	PK	42.8	31.7	7.5	31.4	-	50.6	73.9	23.3	
Vert	5460.000	AV	32.9	31.7	7.5	31.4	1.8	42.5	53.9	11.4	*1)

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

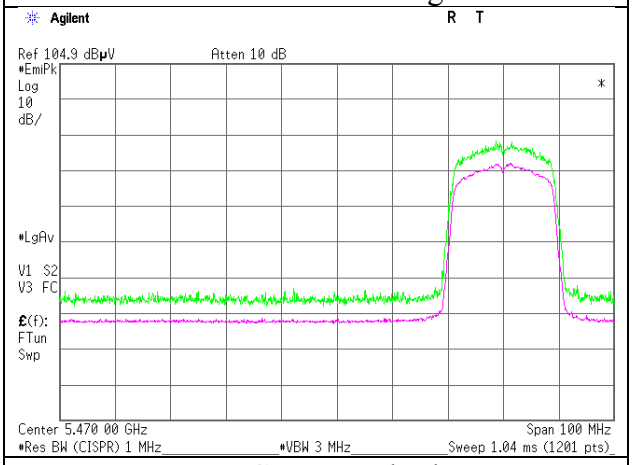
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5500 MHz

Horizontal

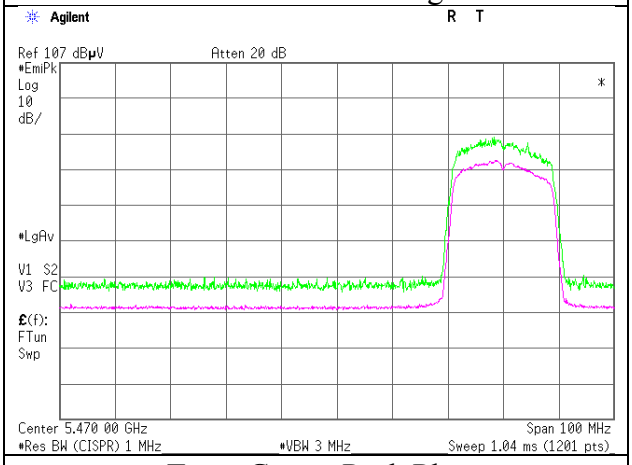
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5700 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5725.000	PK	50.2	32.2	7.6	31.4	-	58.6	73.9	15.3	
Hori	5725.000	AV	34.9	32.2	7.6	31.4	1.8	45.1	53.9	8.8	*1)
Vert	5725.000	PK	49.3	32.2	7.6	31.4	-	57.7	73.9	16.2	
Vert	5725.000	AV	34.5	32.2	7.6	31.4	1.8	44.7	53.9	9.2	*1)

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

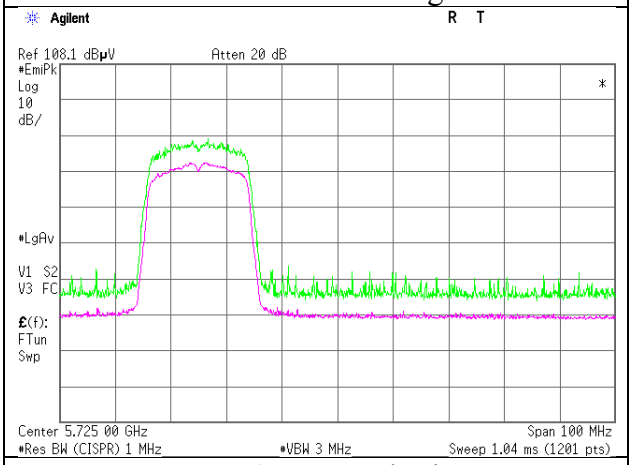
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5700 MHz

Horizontal

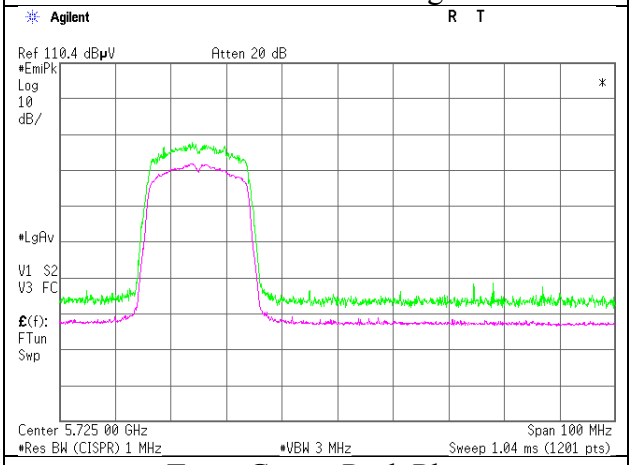
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5745 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5650.000	PK	46.6	32.0	7.5	31.4	-	54.7	68.2	13.5	
Hori	5700.000	PK	48.1	32.1	7.6	31.4	-	56.4	105.2	48.8	
Hori	5720.000	PK	50.0	32.2	7.6	31.4	-	58.4	110.8	52.4	
Hori	5725.000	PK	50.6	32.2	7.6	31.4	-	59.0	122.2	63.2	
Vert	5650.000	PK	45.1	32.0	7.5	31.4	-	53.2	68.2	15.0	
Vert	5700.000	PK	46.2	32.1	7.6	31.4	-	54.5	105.2	50.7	
Vert	5720.000	PK	47.6	32.2	7.6	31.4	-	56.0	110.8	54.8	
Vert	5725.000	PK	51.3	32.2	7.6	31.4	-	59.7	122.2	62.5	

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

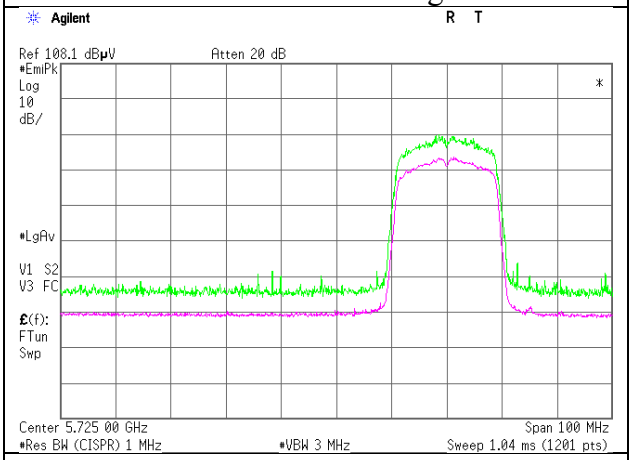
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5745 MHz

Horizontal

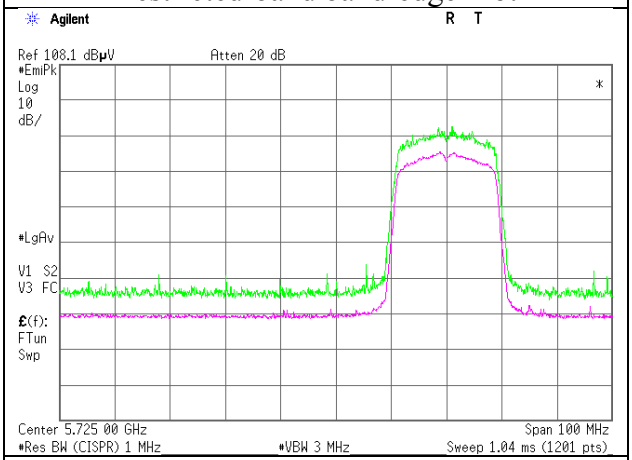
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
Mode	Tx 11ac-20 5825 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5850.000	PK	53.7	32.5	7.6	31.5	-	62.3	122.2	59.9	
Hori	5855.000	PK	50.7	32.5	7.6	31.5	-	59.3	110.8	51.5	
Hori	5875.000	PK	50.1	32.5	7.6	31.5	-	58.7	105.2	46.5	
Hori	5925.000	PK	47.2	32.6	7.6	31.5	-	55.9	68.2	12.3	
Vert	5850.000	PK	52.1	32.5	7.6	31.5	-	60.7	122.2	61.5	
Vert	5855.000	PK	52.0	32.5	7.6	31.5	-	60.6	110.8	50.2	
Vert	5875.000	PK	50.4	32.5	7.6	31.5	-	59.0	105.2	46.2	
Vert	5925.000	PK	49.1	32.6	7.6	31.5	-	57.8	68.2	10.4	

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

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

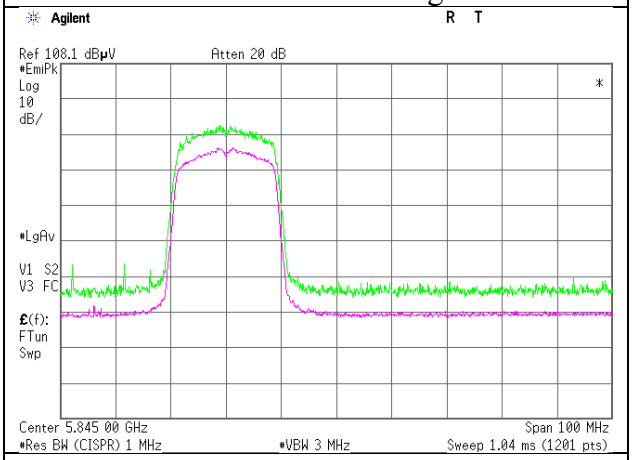
Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 6, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-20 5825 MHz

Horizontal

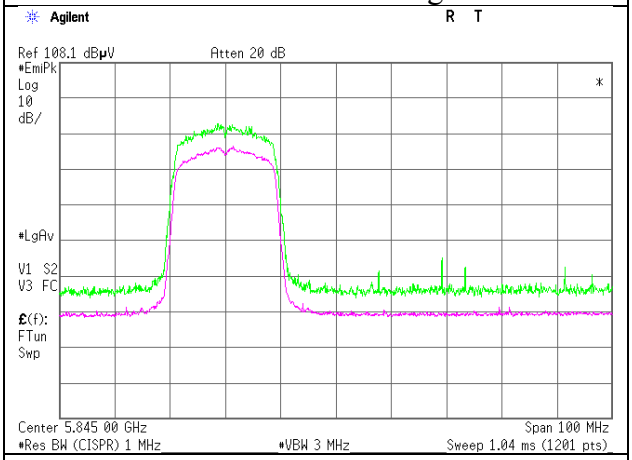
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5190 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	50.2	31.6	7.4	31.3	-	57.9	73.9	16.0	
Hori	10380.000	PK	43.1	38.7	-2.0	32.9	-	46.9	73.9	27.0	Floor noise
Hori	15570.000	PK	42.9	39.0	-0.7	32.7	-	48.5	73.9	25.4	Floor noise
Hori	20760.000	PK	43.8	37.4	-1.3	33.3	-	46.6	73.9	27.3	Floor noise
Hori	5150.000	AV	35.0	31.6	7.4	31.3	2.6	45.3	53.9	8.6	*1)
Hori	10380.000	AV	34.8	38.7	-2.0	32.9	-	38.6	53.9	15.3	Floor noise
Hori	15570.000	AV	34.6	39.0	-0.7	32.7	-	40.2	53.9	13.7	Floor noise
Hori	20760.000	AV	35.0	37.4	-1.3	33.3	-	37.8	53.9	16.1	Floor noise
Vert	5150.000	PK	50.5	31.6	7.4	31.3	-	58.2	73.9	15.7	
Vert	10380.000	PK	43.3	38.7	-2.0	32.9	-	47.1	73.9	26.8	Floor noise
Vert	15570.000	PK	42.7	39.0	-0.7	32.7	-	48.3	73.9	25.6	Floor noise
Vert	20760.000	PK	42.5	37.4	-1.3	33.3	-	45.3	73.9	28.6	Floor noise
Vert	5150.000	AV	34.9	31.6	7.4	31.3	2.6	45.2	53.9	8.7	*1)
Vert	10380.000	AV	34.9	38.7	-2.0	32.9	-	38.7	53.9	15.2	Floor noise
Vert	15570.000	AV	34.9	39.0	-0.7	32.7	-	40.5	53.9	13.4	Floor noise
Vert	20760.000	AV	34.3	37.4	-1.3	33.3	-	37.1	53.9	16.8	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

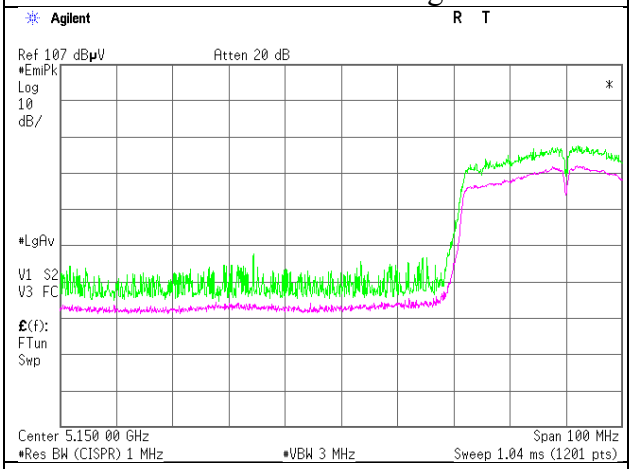
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5190 MHz

Horizontal

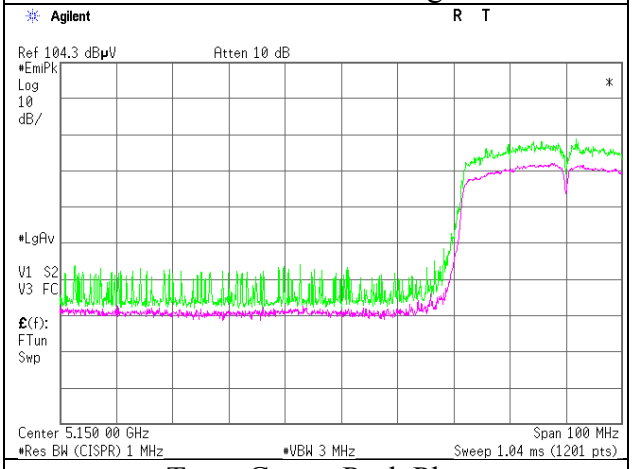
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5230 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	10460.000	PK	43.4	38.7	-2.0	32.9	-	47.2	73.9	26.7	Floor noise
Hori	15690.000	PK	43.7	38.7	-0.7	32.7	-	49.0	73.9	24.9	Floor noise
Hori	20920.000	PK	43.0	37.5	-1.2	33.3	-	46.0	73.9	27.9	Floor noise
Hori	10460.000	AV	34.6	38.7	-2.0	32.9	-	38.4	53.9	15.5	Floor noise
Hori	15690.000	AV	35.2	38.7	-0.7	32.7	-	40.5	53.9	13.4	Floor noise
Hori	20920.000	AV	34.4	37.5	-1.2	33.3	-	37.4	53.9	16.5	Floor noise
Vert	10460.000	PK	42.9	38.7	-2.0	32.9	-	46.7	73.9	27.2	Floor noise
Vert	15690.000	PK	44.0	38.7	-0.7	32.7	-	49.3	73.9	24.6	Floor noise
Vert	20920.000	PK	43.7	37.5	-1.2	33.3	-	46.7	73.9	27.2	Floor noise
Vert	10460.000	AV	34.6	38.7	-2.0	32.9	-	38.4	53.9	15.5	Floor noise
Vert	15690.000	AV	35.5	38.7	-0.7	32.7	-	40.8	53.9	13.1	Floor noise
Vert	20920.000	AV	34.4	37.5	-1.2	33.3	-	37.4	53.9	16.5	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5310 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	48.8	31.6	7.4	31.3	-	56.5	73.9	17.4	
Hori	10620.000	PK	43.5	39.0	-2.0	33.0	-	47.5	73.9	26.4	Floor noise
Hori	15930.000	PK	43.7	38.0	-0.6	32.7	-	48.4	73.9	25.5	Floor noise
Hori	21240.000	PK	43.4	37.7	-1.2	33.3	-	46.6	73.9	27.3	Floor noise
Hori	5350.000	AV	30.8	31.6	7.4	31.3	2.6	41.1	53.9	12.8	*1)
Hori	10620.000	AV	34.3	39.0	-2.0	33.0	-	38.3	53.9	15.6	Floor noise
Hori	15930.000	AV	34.6	38.0	-0.6	32.7	-	39.3	53.9	14.6	Floor noise
Hori	21240.000	AV	34.8	37.7	-1.2	33.3	-	38.0	53.9	15.9	Floor noise
Vert	5350.000	PK	49.4	31.6	7.4	31.3	-	57.1	73.9	16.8	
Vert	10620.000	PK	43.8	39.0	-2.0	33.0	-	47.8	73.9	26.1	Floor noise
Vert	15930.000	PK	43.8	38.0	-0.6	32.7	-	48.5	73.9	25.4	Floor noise
Vert	21240.000	PK	43.3	37.7	-1.2	33.3	-	46.5	73.9	27.4	Floor noise
Vert	5350.000	AV	33.9	31.6	7.4	31.3	2.6	44.2	53.9	9.7	*1)
Vert	10620.000	AV	34.1	39.0	-2.0	33.0	-	38.1	53.9	15.8	Floor noise
Vert	15930.000	AV	34.3	38.0	-0.6	32.7	-	39.0	53.9	14.9	Floor noise
Vert	21240.000	AV	34.8	37.7	-1.2	33.3	-	38.0	53.9	15.9	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

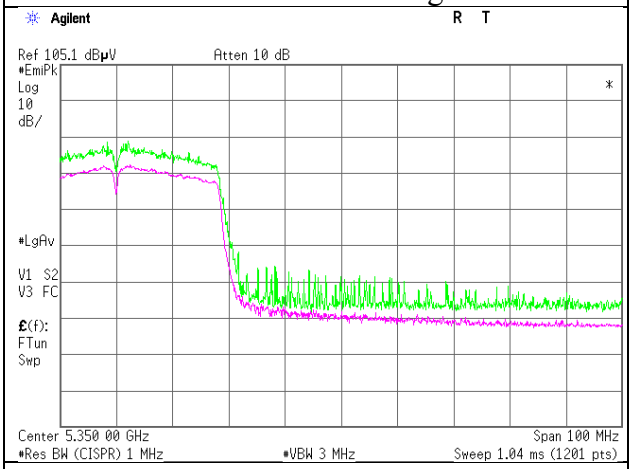
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5310 MHz

Horizontal

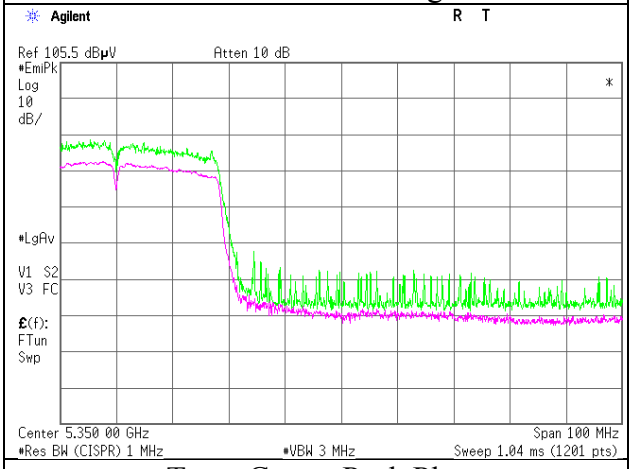
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5510 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5460.000	PK	45.1	31.7	7.5	31.4	-	52.9	73.9	21.0	
Hori	5470.000	PK	46.0	31.7	7.5	31.4	-	53.8	73.9	20.1	
Hori	11020.000	PK	43.5	39.8	-2.0	33.0	-	48.3	73.9	25.6	Floor noise
Hori	16530.000	PK	43.7	39.7	-0.6	32.6	-	50.2	73.9	23.7	Floor noise
Hori	22040.000	PK	44.7	38.1	-1.1	33.3	-	48.4	73.9	25.5	Floor noise
Hori	5460.000	AV	33.1	31.7	7.5	31.4	2.6	43.5	53.9	10.4	*1)
Hori	11020.000	AV	34.3	39.8	-2.0	33.0	-	39.1	53.9	14.8	Floor noise
Hori	16530.000	AV	34.6	39.7	-0.6	32.6	-	41.1	53.9	12.8	Floor noise
Hori	22040.000	AV	35.8	38.1	-1.1	33.3	-	39.5	53.9	14.4	Floor noise
Vert	5460.000	PK	47.9	31.7	7.5	31.4	-	55.7	73.9	18.2	
Vert	5470.000	PK	48.2	31.7	7.5	31.4	-	56.0	73.9	17.9	
Vert	11020.000	PK	43.2	39.8	-2.0	33.0	-	48.0	73.9	25.9	Floor noise
Vert	16530.000	PK	43.8	39.7	-0.6	32.6	-	50.3	73.9	23.6	Floor noise
Vert	22040.000	PK	44.3	38.1	-1.1	33.3	-	48.0	73.9	25.9	Floor noise
Vert	5460.000	AV	33.6	31.7	7.5	31.4	2.6	44.0	53.9	9.9	*1)
Vert	11020.000	AV	34.5	39.8	-2.0	33.0	-	39.3	53.9	14.6	Floor noise
Vert	16530.000	AV	34.6	39.7	-0.6	32.6	-	41.1	53.9	12.8	Floor noise
Vert	22040.000	AV	35.7	38.1	-1.1	33.3	-	39.4	53.9	14.5	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

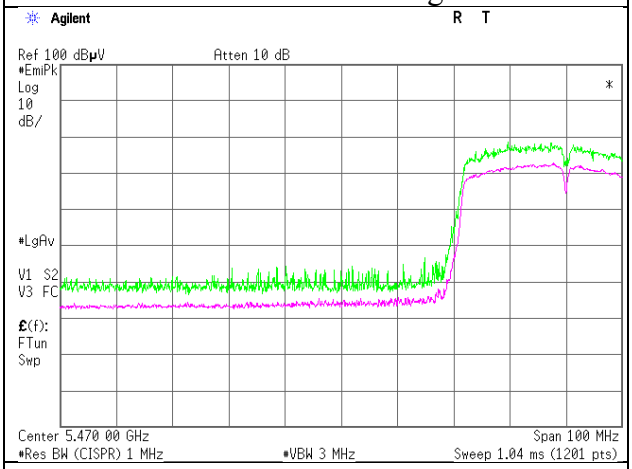
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5510 MHz

Horizontal

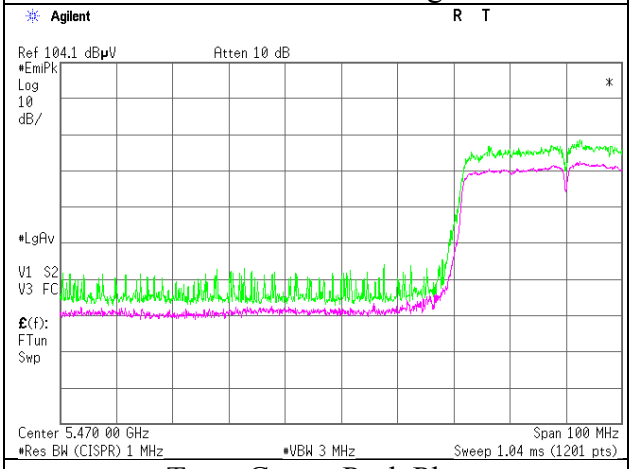
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5550 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	11100.000	PK	43.2	39.9	-1.9	33.1	-	48.1	73.9	25.8	Floor noise
Hori	16650.000	PK	43.8	40.2	-0.6	32.6	-	50.8	73.9	23.1	Floor noise
Hori	22200.000	PK	43.5	38.2	-1.0	33.5	-	47.2	73.9	26.7	Floor noise
Hori	11100.000	AV	34.9	39.9	-1.9	33.1	-	39.8	53.9	14.1	Floor noise
Hori	16650.000	AV	34.2	40.2	-0.6	32.6	-	41.2	53.9	12.7	Floor noise
Hori	22200.000	AV	35.1	38.2	-1.0	33.5	-	38.8	53.9	15.1	Floor noise
Vert	11100.000	PK	43.2	39.9	-1.9	33.1	-	48.1	73.9	25.8	Floor noise
Vert	16650.000	PK	43.7	40.2	-0.6	32.6	-	50.7	73.9	23.2	Floor noise
Vert	22200.000	PK	44.0	38.2	-1.0	33.5	-	47.7	73.9	26.2	Floor noise
Vert	11100.000	AV	34.8	39.9	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Vert	16650.000	AV	34.3	40.2	-0.6	32.6	-	41.3	53.9	12.6	Floor noise
Vert	22200.000	AV	35.3	38.2	-1.0	33.5	-	39.0	53.9	14.9	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5670 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5725.000	PK	45.0	32.2	7.6	31.4	-	53.4	73.9	20.5	
Hori	11340.000	PK	43.8	40.1	-1.9	33.1	-	48.9	73.9	25.0	Floor noise
Hori	17010.000	PK	43.9	41.4	-0.5	32.6	-	52.2	73.9	21.7	Floor noise
Hori	22680.000	PK	44.2	38.4	-0.9	33.4	-	48.3	73.9	25.6	Floor noise
Hori	5725.000	AV	32.9	32.2	7.6	31.4	2.6	43.9	53.9	10.0	*1)
Hori	11340.000	AV	34.6	40.1	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Hori	17010.000	AV	34.6	41.4	-0.5	32.6	-	42.9	53.9	11.0	Floor noise
Hori	22680.000	AV	35.4	38.4	-0.9	33.4	-	39.5	53.9	14.4	Floor noise
Vert	5725.000	PK	48.2	32.2	7.6	31.4	-	56.6	73.9	17.3	
Vert	11340.000	PK	44.0	40.1	-1.9	33.1	-	49.1	73.9	24.8	Floor noise
Vert	17010.000	PK	43.9	41.4	-0.5	32.6	-	52.2	73.9	21.7	Floor noise
Vert	22680.000	PK	43.7	38.4	-0.9	33.4	-	47.8	73.9	26.1	Floor noise
Vert	5725.000	AV	34.1	32.2	7.6	31.4	2.6	45.1	53.9	8.8	*1)
Vert	11340.000	AV	34.5	40.1	-1.9	33.1	-	39.6	53.9	14.3	Floor noise
Vert	17010.000	AV	34.6	41.4	-0.5	32.6	-	42.9	53.9	11.0	Floor noise
Vert	22680.000	AV	35.2	38.4	-0.9	33.4	-	39.3	53.9	14.6	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

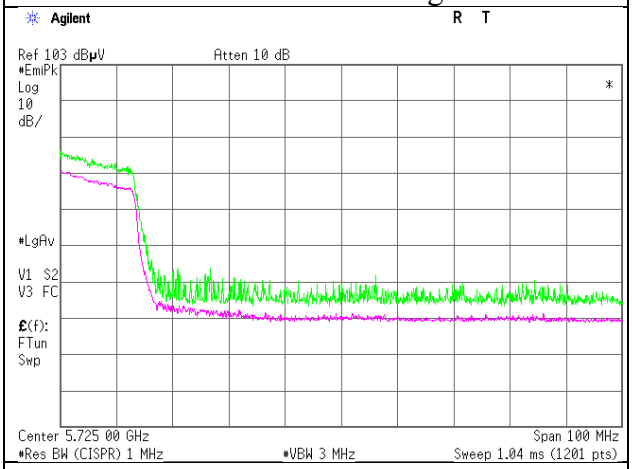
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5670 MHz

Horizontal

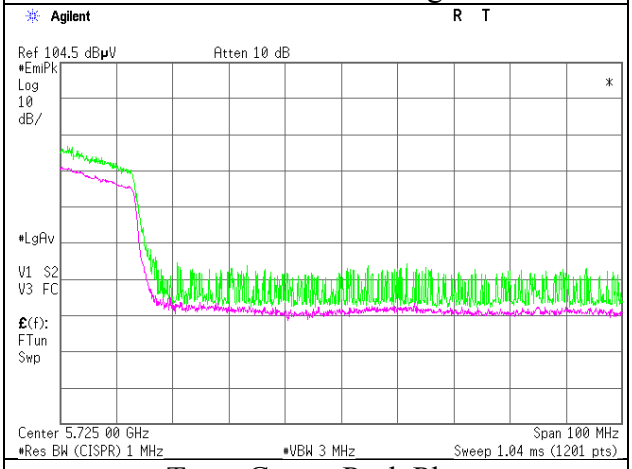
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5755 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5650.000	PK	44.0	32.0	7.5	31.4	-	52.1	68.2	16.1	
Hori	5700.000	PK	47.5	32.1	7.6	31.4	-	55.8	105.2	49.4	
Hori	5720.000	PK	49.7	32.2	7.6	31.4	-	58.1	110.8	52.7	
Hori	5725.000	PK	50.6	32.2	7.6	31.4	-	59.0	122.2	63.2	
Hori	11510.000	PK	43.1	40.3	-1.9	33.1	-	48.4	73.9	25.5	Floor noise
Hori	17265.000	PK	43.3	42.2	-0.5	32.6	-	52.4	73.9	21.5	Floor noise
Hori	23020.000	PK	44.9	38.5	-0.7	33.5	-	49.2	73.9	24.7	Floor noise
Hori	11510.000	AV	34.5	40.3	-1.9	33.1	-	39.8	53.9	14.1	Floor noise
Hori	17265.000	AV	34.6	42.2	-0.5	32.6	-	43.7	53.9	10.2	Floor noise
Hori	23020.000	AV	36.4	38.5	-0.7	33.5	-	40.7	53.9	13.2	Floor noise
Vert	5650.000	PK	45.2	32.0	7.5	31.4	-	53.3	68.2	14.9	
Vert	5700.000	PK	49.0	32.1	7.6	31.4	-	57.3	105.2	47.9	
Vert	5720.000	PK	51.4	32.2	7.6	31.4	-	59.8	110.8	51.0	
Vert	5725.000	PK	53.3	32.2	7.6	31.4	-	61.7	122.2	60.5	
Vert	11510.000	PK	43.0	40.3	-1.9	33.1	-	48.3	73.9	25.6	Floor noise
Vert	17265.000	PK	42.9	42.2	-0.5	32.6	-	52.0	73.9	21.9	Floor noise
Vert	23020.000	PK	44.7	38.5	-0.7	33.5	-	49.0	73.9	24.9	Floor noise
Vert	11510.000	AV	34.5	40.3	-1.9	33.1	-	39.8	53.9	14.1	Floor noise
Vert	17265.000	AV	34.4	42.2	-0.5	32.6	-	43.5	53.9	10.4	Floor noise
Vert	23020.000	AV	36.2	38.5	-0.7	33.5	-	40.5	53.9	13.4	Floor noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

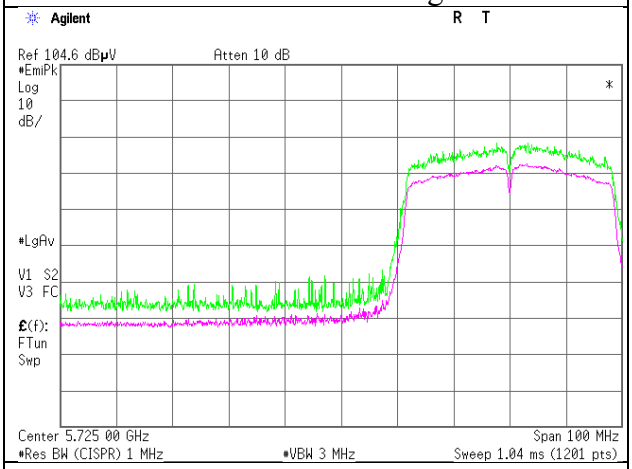
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5755 MHz

Horizontal

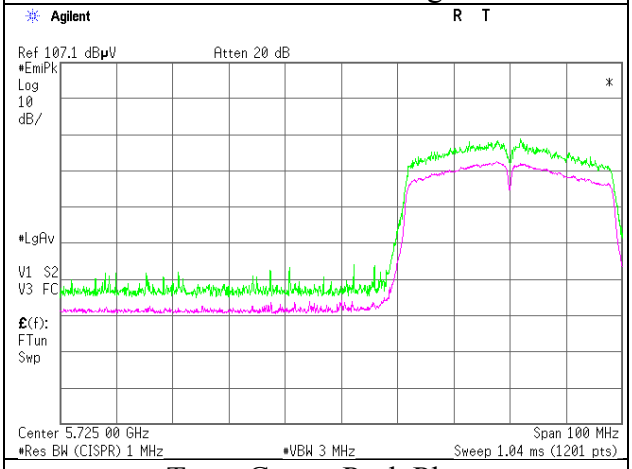
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-40 5795 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5850.000	PK	45.0	32.5	7.6	31.5	-	53.6	122.2	68.6	
Hori	5855.000	PK	44.9	32.5	7.6	31.5	-	53.5	110.8	57.3	
Hori	5875.000	PK	44.0	32.5	7.6	31.5	-	52.6	105.2	52.6	
Hori	5925.000	PK	43.4	32.6	7.6	31.5	-	52.1	68.2	16.1	
Hori	11590.000	PK	43.3	40.3	-1.9	33.1	-	48.6	73.9	25.3	Floor noise
Hori	17385.000	PK	44.0	42.6	-0.5	32.6	-	53.5	73.9	20.4	Floor noise
Hori	23180.000	PK	43.9	38.6	-0.7	33.4	-	48.4	73.9	25.5	Floor noise
Hori	11590.000	AV	34.3	40.3	-1.9	33.1	-	39.6	53.9	14.3	Floor noise
Hori	17385.000	AV	34.5	42.6	-0.5	32.6	-	44.0	53.9	9.9	Floor noise
Hori	23180.000	AV	35.6	38.6	-0.7	33.4	-	40.1	53.9	13.8	Floor noise
Vert	5850.000	PK	48.3	32.5	7.6	31.5	-	56.9	122.2	65.3	
Vert	5855.000	PK	47.5	32.5	7.6	31.5	-	56.1	110.8	54.7	
Vert	5875.000	PK	47.4	32.5	7.6	31.5	-	56.0	105.2	49.2	
Vert	5925.000	PK	47.0	32.6	7.6	31.5	-	55.7	68.2	12.5	
Vert	11590.000	PK	43.0	40.3	-1.9	33.1	-	48.3	73.9	25.6	Floor noise
Vert	17385.000	PK	43.9	42.6	-0.5	32.6	-	53.4	73.9	20.5	Floor noise
Vert	23180.000	PK	44.3	38.6	-0.7	33.4	-	48.8	73.9	25.1	Floor noise
Vert	11590.000	AV	34.4	40.3	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Vert	17385.000	AV	34.7	42.6	-0.5	32.6	-	44.2	53.9	9.7	Floor noise
Vert	23180.000	AV	35.6	38.6	-0.7	33.4	-	40.1	53.9	13.8	Floor noise

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

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

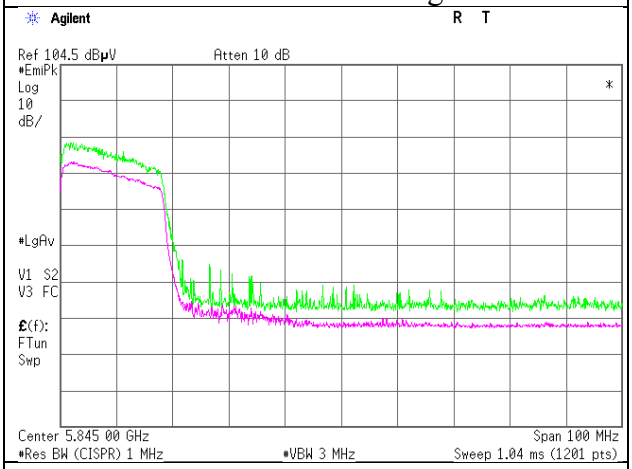
Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 62 % RH
Engineer	Satofumi Matsuyama
Mode	Tx 11ac-40 5795 MHz

Horizontal

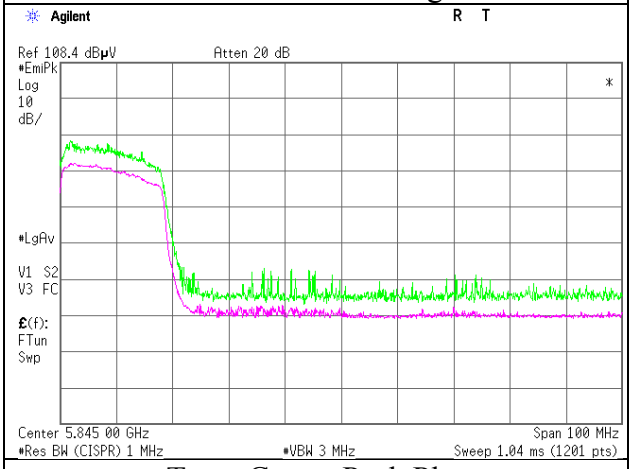
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 70 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5210 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	56.1	31.6	7.4	31.3	-	63.8	73.9	10.1	
Hori	10420.000	PK	42.9	38.7	-2.0	32.9	-	46.7	73.9	27.2	Floor noise
Hori	15630.000	PK	43.3	38.8	-0.7	32.7	-	48.7	73.9	25.2	Floor noise
Hori	20840.000	PK	42.9	37.5	-1.3	33.3	-	45.8	73.9	28.1	Floor noise
Hori	5150.000	AV	36.6	31.6	7.4	31.3	3.5	47.8	53.9	6.1	*1)
Hori	10420.000	AV	34.3	38.7	-2.0	32.9	-	38.1	53.9	15.8	Floor noise
Hori	15630.000	AV	34.8	38.8	-0.7	32.7	-	40.2	53.9	13.7	Floor noise
Hori	20840.000	AV	34.5	37.5	-1.3	33.3	-	37.4	53.9	16.5	Floor noise
Vert	5150.000	PK	55.2	31.6	7.4	31.3	-	62.9	73.9	11.0	
Vert	10420.000	PK	42.8	38.7	-2.0	32.9	-	46.6	73.9	27.3	Floor noise
Vert	15630.000	PK	43.2	38.8	-0.7	32.7	-	48.6	73.9	25.3	Floor noise
Vert	20840.000	PK	44.1	37.5	-1.3	33.3	-	47.0	73.9	26.9	Floor noise
Vert	5150.000	AV	36.5	31.6	7.4	31.3	3.5	47.7	53.9	6.2	*1)
Vert	10420.000	AV	34.5	38.7	-2.0	32.9	-	38.3	53.9	15.6	Floor noise
Vert	15630.000	AV	34.4	38.8	-0.7	32.7	-	39.8	53.9	14.1	Floor noise
Vert	20840.000	AV	34.6	37.5	-1.3	33.3	-	37.5	53.9	16.4	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

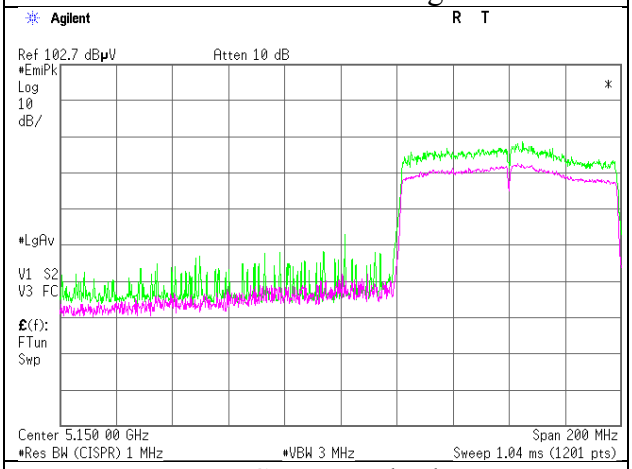
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 70 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5210 MHz

Horizontal

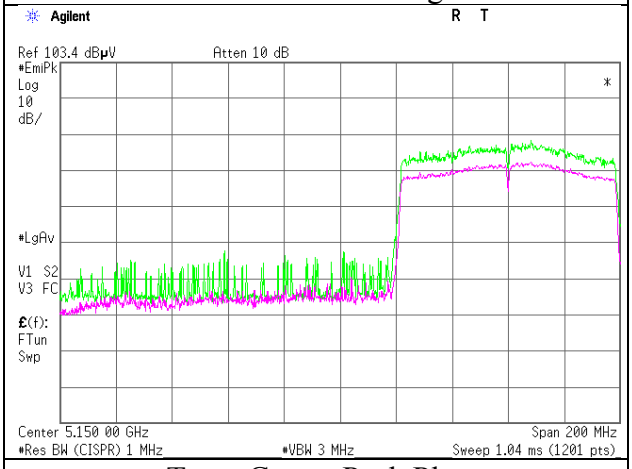
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 70 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5290 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	55.5	31.6	7.4	31.3	-	63.2	73.9	10.7	
Hori	10580.000	PK	43.8	38.9	-2.0	33.0	-	47.7	73.9	26.2	Floor noise
Hori	15870.000	PK	43.7	38.2	-0.6	32.7	-	48.6	73.9	25.3	Floor noise
Hori	21160.000	PK	43.2	37.7	-1.2	33.3	-	46.4	73.9	27.5	Floor noise
Hori	5350.000	AV	36.5	31.6	7.4	31.3	3.5	47.7	53.9	6.2	*1)
Hori	10580.000	AV	34.2	38.9	-2.0	33.0	-	38.1	53.9	15.8	Floor noise
Hori	15870.000	AV	34.6	38.2	-0.6	32.7	-	39.5	53.9	14.4	Floor noise
Hori	21160.000	AV	34.6	37.7	-1.2	33.3	-	37.8	53.9	16.1	Floor noise
Vert	5350.000	PK	55.6	31.6	7.4	31.3	-	63.3	73.9	10.6	
Vert	10580.000	PK	43.9	38.9	-2.0	33.0	-	47.8	73.9	26.1	Floor noise
Vert	15870.000	PK	43.8	38.2	-0.6	32.7	-	48.7	73.9	25.2	Floor noise
Vert	21160.000	PK	43.4	37.7	-1.2	33.3	-	46.6	73.9	27.3	Floor noise
Vert	5350.000	AV	38.8	31.6	7.4	31.3	3.5	50.0	53.9	3.9	*1)
Vert	10580.000	AV	34.2	38.9	-2.0	33.0	-	38.1	53.9	15.8	Floor noise
Vert	15870.000	AV	34.5	38.2	-0.6	32.7	-	39.4	53.9	14.5	Floor noise
Vert	21160.000	AV	34.5	37.7	-1.2	33.3	-	37.7	53.9	16.2	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

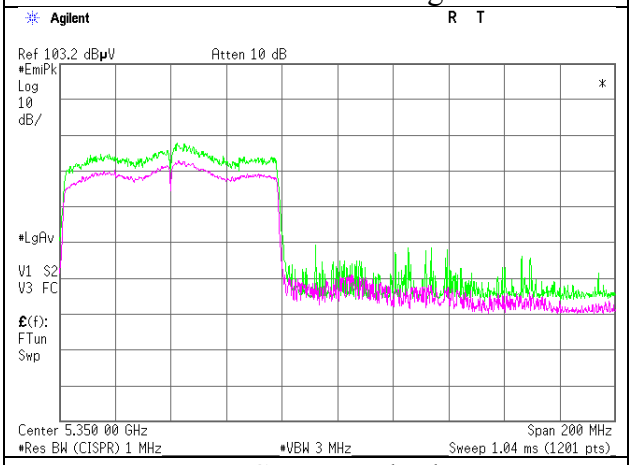
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 70 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5290 MHz

Horizontal

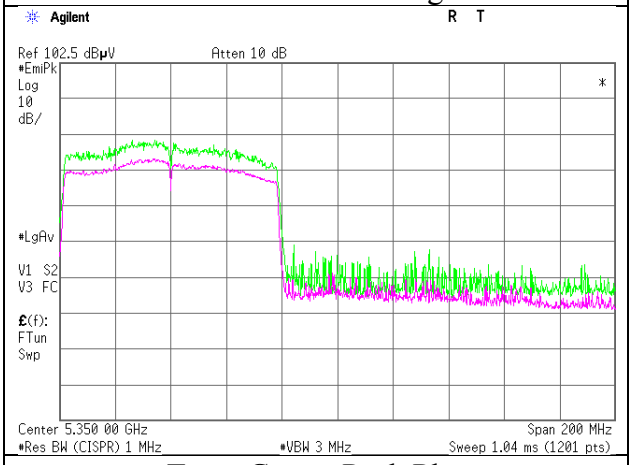
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 70 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5530 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5470.000	PK	54.1	31.7	7.5	31.4	-	61.9	73.9	12.0	
Hori	11060.000	PK	43.7	39.8	-2.0	33.0	-	48.5	73.9	25.4	Floor noise
Hori	16590.000	PK	43.9	40.0	-0.6	32.6	-	50.7	73.9	23.2	Floor noise
Hori	22120.000	PK	43.1	38.2	-1.1	33.3	-	46.9	73.9	27.0	Floor noise
Hori	5470.000	AV	35.7	31.7	7.5	31.4	3.5	47.0	53.9	6.9	*1)
Hori	11060.000	AV	34.4	39.8	-2.0	33.0	-	39.2	53.9	14.7	Floor noise
Hori	16590.000	AV	34.8	40.0	-0.6	32.6	-	41.6	53.9	12.3	Floor noise
Hori	22120.000	AV	35.1	38.2	-1.1	33.3	-	38.9	53.9	15.0	Floor noise
Vert	5470.000	PK	53.0	31.7	7.5	31.4	-	60.8	73.9	13.1	
Vert	11060.000	PK	43.4	39.8	-2.0	33.0	-	48.2	73.9	25.7	Floor noise
Vert	16590.000	PK	43.8	40.0	-0.6	32.6	-	50.6	73.9	23.3	Floor noise
Vert	22120.000	PK	43.5	38.2	-1.1	33.3	-	47.3	73.9	26.6	Floor noise
Vert	5470.000	AV	36.5	31.7	7.5	31.4	3.5	47.8	53.9	6.1	*1)
Vert	11060.000	AV	34.4	39.8	-2.0	33.0	-	39.2	53.9	14.7	Floor noise
Vert	16590.000	AV	34.5	40.0	-0.6	32.6	-	41.3	53.9	12.6	Floor noise
Vert	22120.000	AV	35.0	38.2	-1.1	33.3	-	38.8	53.9	15.1	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

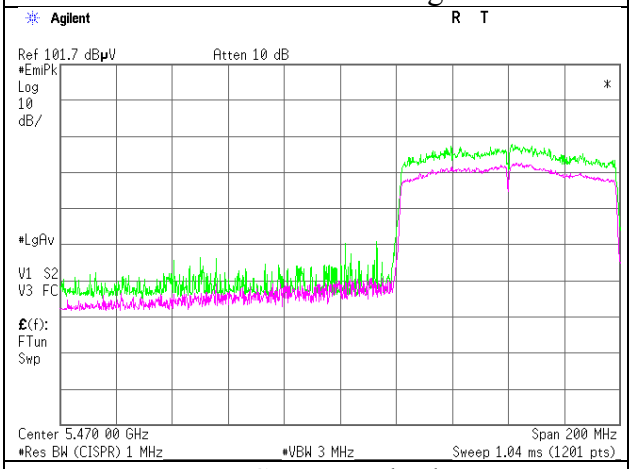
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 70 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5530 MHz

Horizontal

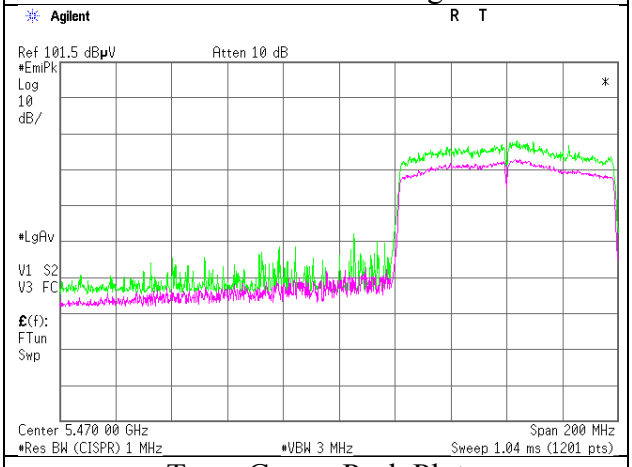
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 70 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5610 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5725.000	PK	52.4	32.2	7.6	31.4	-	60.8	73.9	13.1	
Hori	11220.000	PK	43.0	40.0	-1.9	33.1	-	48.0	73.9	25.9	Floor noise
Hori	16830.000	PK	43.2	40.8	-0.5	32.6	-	50.9	73.9	23.0	Floor noise
Hori	22440.000	PK	44.2	38.3	-1.0	33.4	-	48.1	73.9	25.8	Floor noise
Hori	5725.000	AV	36.3	32.2	7.6	31.4	3.5	48.2	53.9	5.7	*1)
Hori	11220.000	AV	34.7	40.0	-1.9	33.1	-	39.7	53.9	14.2	Floor noise
Hori	16830.000	AV	34.1	40.8	-0.5	32.6	-	41.8	53.9	12.1	Floor noise
Hori	22440.000	AV	35.1	38.3	-1.0	33.4	-	39.0	53.9	14.9	Floor noise
Vert	5725.000	PK	52.8	32.2	7.6	31.4	-	61.2	73.9	12.7	
Vert	11220.000	PK	43.1	40.0	-1.9	33.1	-	48.1	73.9	25.8	Floor noise
Vert	16830.000	PK	43.3	40.8	-0.5	32.6	-	51.0	73.9	22.9	Floor noise
Vert	22440.000	PK	43.7	38.3	-1.0	33.4	-	47.6	73.9	26.3	Floor noise
Vert	5725.000	AV	34.1	32.2	7.6	31.4	3.5	46.0	53.9	7.9	*1)
Vert	11220.000	AV	34.9	40.0	-1.9	33.1	-	39.9	53.9	14.0	Floor noise
Vert	16830.000	AV	34.3	40.8	-0.5	32.6	-	42.0	53.9	11.9	Floor noise
Vert	22440.000	AV	35.2	38.3	-1.0	33.4	-	39.1	53.9	14.8	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

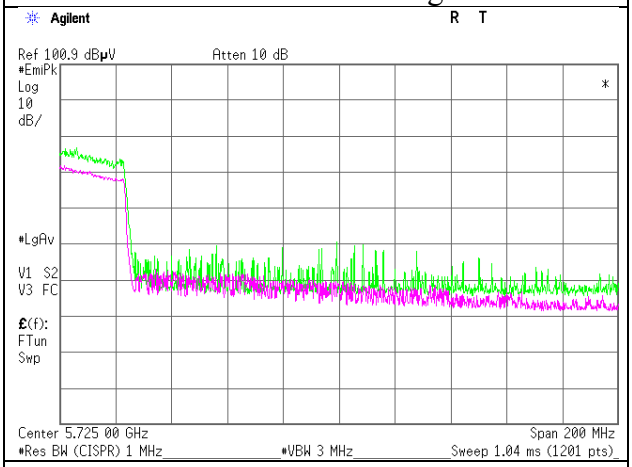
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 70 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5610 MHz

Horizontal

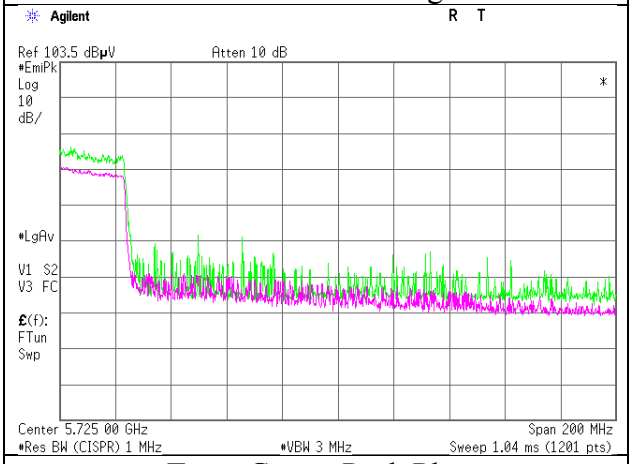
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 70 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5775 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5650.000	PK	48.6	32.0	7.5	31.4	-	56.7	68.2	11.5	
Hori	5700.000	PK	53.0	32.1	7.6	31.4	-	61.3	105.2	43.9	
Hori	5720.000	PK	54.7	32.2	7.6	31.4	-	63.1	110.8	47.7	
Hori	5725.000	PK	54.8	32.2	7.6	31.4	-	63.2	122.2	59.0	
Hori	5850.000	PK	56.0	32.5	7.6	31.5	-	64.6	122.2	57.6	
Hori	5855.000	PK	55.6	32.5	7.6	31.5	-	64.2	110.8	46.6	
Hori	5875.000	PK	53.8	32.5	7.6	31.5	-	62.4	105.2	42.8	
Hori	5925.000	PK	50.7	32.6	7.6	31.5	-	59.4	68.2	8.8	
Hori	11550.000	PK	43.3	40.3	-1.9	33.1	-	48.6	73.9	25.3	Floor noise
Hori	17325.000	PK	44.0	42.4	-0.5	32.6	-	53.3	73.9	20.6	Floor noise
Hori	23100.000	PK	44.5	38.6	-0.7	33.5	-	48.9	73.9	25.0	Floor noise
Hori	11550.000	AV	34.1	40.3	-1.9	33.1	-	39.4	53.9	14.5	Floor noise
Hori	17325.000	AV	34.0	42.4	-0.5	32.6	-	43.3	53.9	10.6	Floor noise
Hori	23100.000	AV	36.3	38.6	-0.7	33.5	-	40.7	53.9	13.2	Floor noise
Vert	5650.000	PK	48.6	32.0	7.5	31.4	-	56.7	68.2	11.5	
Vert	5700.000	PK	50.3	32.1	7.6	31.4	-	58.6	105.2	46.6	
Vert	5720.000	PK	53.7	32.2	7.6	31.4	-	62.1	110.8	48.7	
Vert	5725.000	PK	55.2	32.2	7.6	31.4	-	63.6	122.2	58.6	
Vert	5850.000	PK	57.2	32.5	7.6	31.5	-	65.8	122.2	56.4	
Vert	5855.000	PK	56.7	32.5	7.6	31.5	-	65.3	110.8	45.5	
Vert	5875.000	PK	54.9	32.5	7.6	31.5	-	63.5	105.2	41.7	
Vert	5925.000	PK	53.1	32.6	7.6	31.5	-	61.8	68.2	6.4	
Vert	11550.000	PK	43.2	40.3	-1.9	33.1	-	48.5	73.9	25.4	Floor noise
Vert	17325.000	PK	43.6	42.4	-0.5	32.6	-	52.9	73.9	21.0	Floor noise
Vert	23100.000	PK	44.3	38.6	-0.7	33.5	-	48.7	73.9	25.2	Floor noise
Vert	11550.000	AV	34.2	40.3	-1.9	33.1	-	39.5	53.9	14.4	Floor noise
Vert	17325.000	AV	34.2	42.4	-0.5	32.6	-	43.5	53.9	10.4	Floor noise
Vert	23100.000	AV	36.2	38.6	-0.7	33.5	-	40.6	53.9	13.3	Floor noise

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

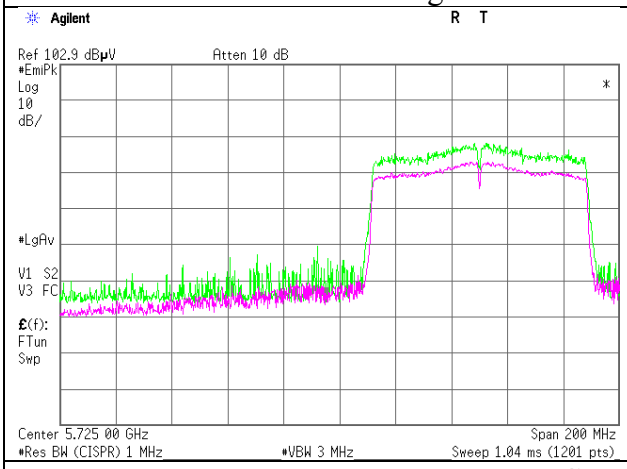
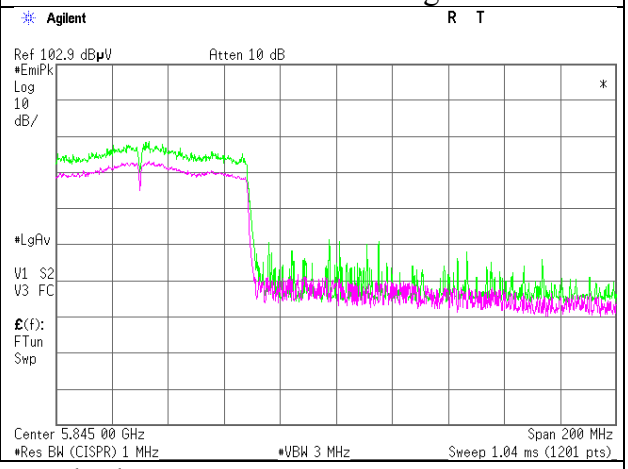
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

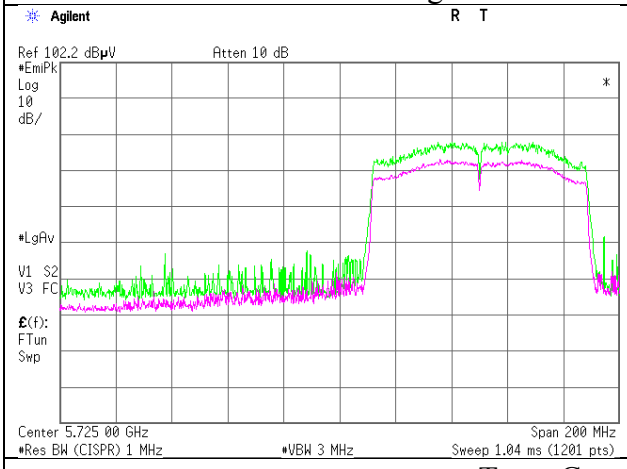
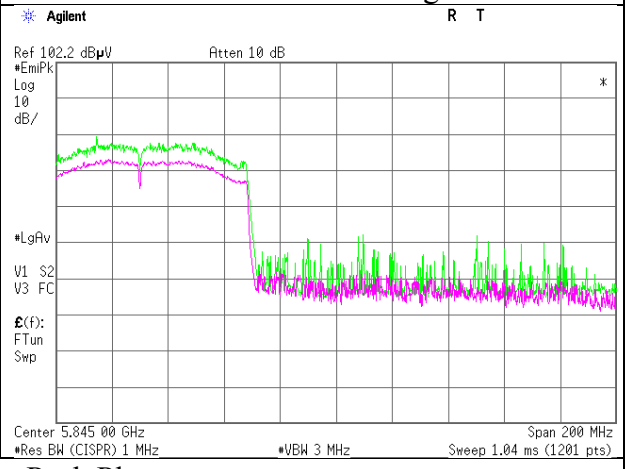
Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11469126H
Date	October 5, 2016
Temperature / Humidity	24deg. C / 70 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5775 MHz

Horizontal	Horizontal
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	

Vertical	Vertical
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	

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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.4 and No.3 Semi Anechoic Chamber		
Report No.	11469126H		
Date	October 6, 2016	October 10, 2016	October 11, 2016
Temperature / Humidity	24 deg. C / 63 % RH	24 deg. C / 45 % RH	23 deg. C / 55 % RH
Engineer	Satofumi Matsuyama (1 GHz - 18 GHz)	Yuta Moriya (Below 1 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11ac-80 5290 MHz + Tx BT LE 2402 MHz		

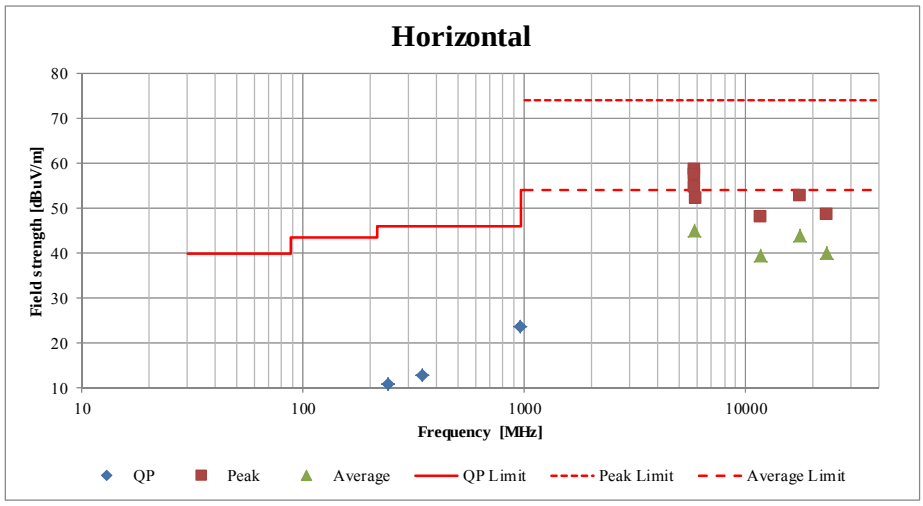
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	33.655	QP	22.2	16.0	7.1	32.2	-	13.1	40.0	26.9	
Hori	36.536	QP	22.2	15.1	7.1	32.2	-	12.2	40.0	27.8	
Hori	104.000	QP	22.2	10.3	8.1	32.2	-	8.4	43.5	35.1	
Hori	216.000	QP	21.2	11.8	9.2	32.0	-	10.2	43.5	33.3	
Hori	530.655	QP	21.4	18.1	11.5	32.0	-	19.0	46.0	27.0	
Hori	953.345	QP	21.2	22.3	13.7	30.6	-	26.6	46.0	19.4	
Hori	5350.000	PK	53.3	31.6	9.3	31.3	-	62.9	73.9	11.0	
Hori	10580.000	PK	41.8	38.9	-2.0	33.0	-	45.7	73.9	28.2	Floor noise
Hori	15870.000	PK	42.1	38.2	-0.6	32.7	-	47.0	73.9	26.9	Floor noise
Hori	5350.000	AV	35.5	31.6	9.3	31.3	3.5	48.6	53.9	5.3	*1)
Hori	10580.000	AV	33.8	38.9	-2.0	33.0	-	37.7	53.9	16.2	Floor noise
Hori	15870.000	AV	33.7	38.2	-0.6	32.7	-	38.6	53.9	15.3	Floor noise
Vert	33.655	QP	24.6	16.0	7.1	32.2	-	15.5	40.0	24.5	
Vert	36.536	QP	26.9	15.3	7.1	32.2	-	17.1	40.0	22.9	
Vert	104.000	QP	22.2	10.3	8.1	32.2	-	8.4	43.5	35.1	
Vert	216.000	QP	21.1	11.8	9.2	32.0	-	10.1	43.5	33.4	
Vert	530.655	QP	21.6	18.1	11.5	32.0	-	19.2	46.0	26.8	
Vert	953.345	QP	21.3	22.3	13.7	30.6	-	26.7	46.0	19.3	
Vert	5350.000	PK	52.9	31.6	9.3	31.3	-	62.5	73.9	11.4	
Vert	10580.000	PK	42.3	38.9	-2.0	33.0	-	46.2	73.9	27.7	Floor noise
Vert	15870.000	PK	41.7	38.2	-0.6	32.7	-	46.6	73.9	27.3	Floor noise
Vert	5350.000	AV	35.9	31.6	9.3	31.3	3.5	49.0	53.9	4.9	*1)
Vert	10580.000	AV	34.0	38.9	-2.0	33.0	-	37.9	53.9	16.0	Floor noise
Vert	15870.000	AV	33.6	38.2	-0.6	32.7	-	38.5	53.9	15.4	Floor noise

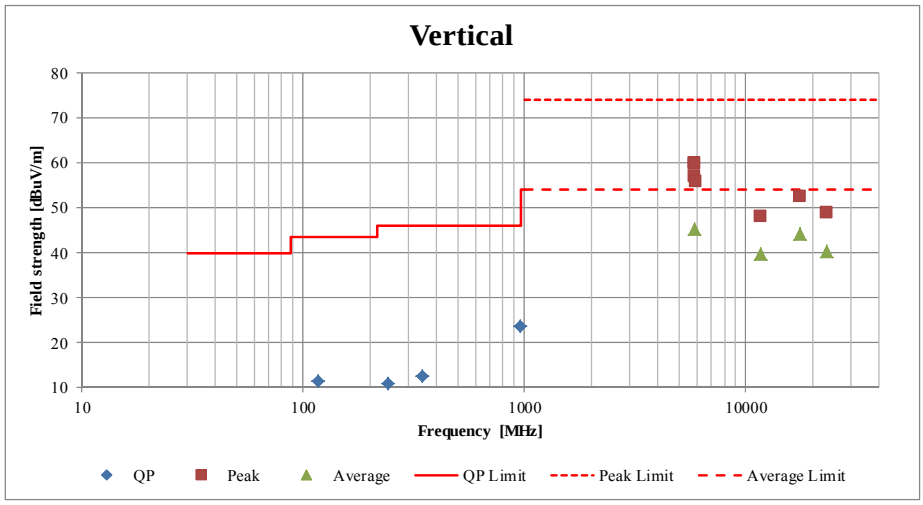
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.5 m / 3.0 m) = 3.53 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission
(Plot data, Worst case)

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber			
Report No.	11469126H			
Date	October 3, 2016	October 5, 2016	October 6, 2016	October 11, 2016
Temperature / Humidity	24deg. C / 72 % RH	24deg. C / 62 % RH	24 deg. C / 63 % RH	23 deg. C / 55 % RH
Engineer	Takumi Shimada (Below1 GHz)	Satofumi Matsuyama (1 GHz - 10 GHz)	Satofumi Matsuyama (10 GHz - 18 GHz)	Tomoki Matsui (18 GHz - 40 GHz)
Mode	Tx 11a 5825 MHz			





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

UL Japan, Inc.
Ise EMC Lab.
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
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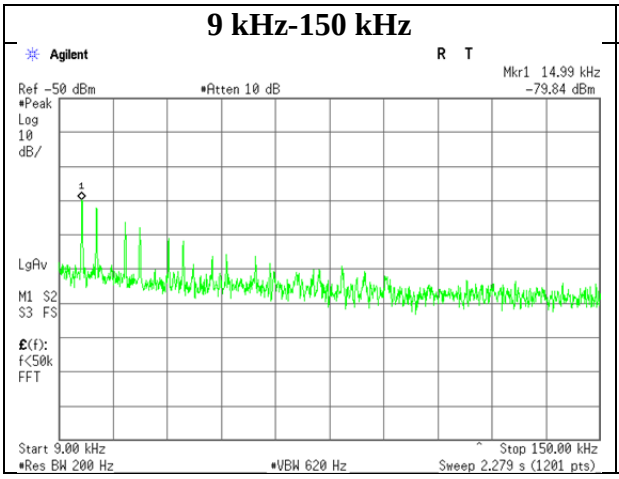
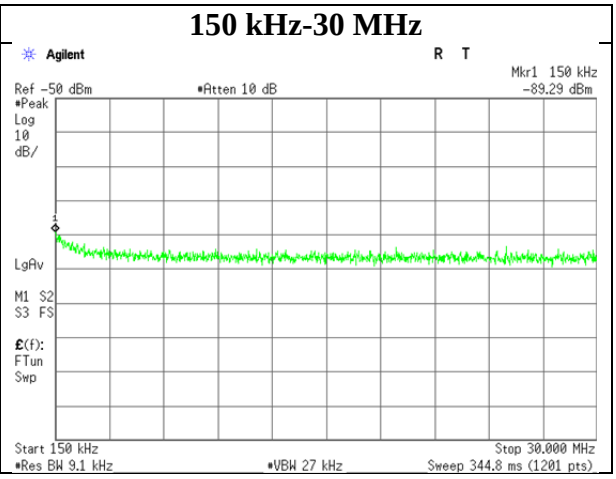
Conducted Spurious Emission

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11469126H
Date	April 6, 2015
Temperature / Humidity	24 deg. C / 54 % RH
Engineer	Hiroyuki Furutaka
Mode	Tx 11a 5825 MHz

9 kHz-150 kHz



150 kHz-30 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator Loss [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
14.99	-79.8	0.09	9.8	2.0	1	-67.9	300	6.0	-6.7	44.0	50.7	
150.00	-89.3	0.09	9.8	2.0	1	-77.4	300	6.0	-16.1	24.0	40.1	

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

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

N: Number of output

*If antenna gain is less than 2.0 dBi, 2.0 dBi is applied to the test result based on KDB 558074.

APPENDIX 2: Test instruments

Test equipment(1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2015/10/02 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	1501	RE	2016/01/21 * 12
MJM-26	Measure	KOMELON	KMC-36	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	
MTR-10	EMI Test Receiver	Rohde & Schwarz	ESR26	101408	RE	2016/01/29 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2015/11/02 * 12
MLA-23	Logperiodic Antenna(200-1000MHz)	Schwarzbeck	VUSLP9111B	911B-192	RE	2016/01/30 * 12
MCC-50	Coaxial Cable	UL Japan	-	-	RE	2016/06/20 * 12
MAT-68	Attenuator	Anritsu	MP721B	6200961025	RE	2015/11/12 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2016/03/18 * 12
MMM-10	DIGITAL HiTESTER	Hioki	3805	051201148	RE	2016/01/18 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE	2015/11/06 * 12
MCC-141	Microwave Cable	Junkosha	MWX221	1305S002R(1m) / 1405S146(5m)	RE	2016/06/21 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	00650	RE	2015/10/01 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2016/09/28 * 12
MAT-10	Attenuator(10dB)	Weinschel Corp	2	BL1173	AT	2015/11/10 * 12
MCC-64	Coaxial Cable	UL Japan	-	-	AT	2016/03/10 * 12
MSA-13	Spectrum Analyzer	Agilent	E4440A	MY46185823	AT	2016/06/17 * 12
MPM-16	Power Meter	Agilent	8990B	MY51000271	AT	2016/04/07 * 12
MPSE-22	Power sensor	Agilent	N1923A	MY54070003	AT	2016/04/07 * 12
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	AT	2015/12/08 * 12
MAT-58	Attenuator(10dB)	Suhner	6810.19.A	-	AT	2016/01/18 * 12
MCC-66	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	28636/2	AT	2016/04/18 * 12
MHF-23	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCC	603	RE	2016/01/19 * 12
MCC-178	Microwave Cable	Junkosha	MMX221-00500 DMSDMS	1502S305	RE	2016/03/10 * 12
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2015/10/01 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	1301	RE	2016/01/21 * 12
MJM-16	Measure	KOMELON	KMC-36	-	RE	-
MSA-14	Spectrum Analyzer	Agilent	E4440A	MY48250080	RE	2015/10/07 * 12
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	RE	2016/09/15 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1915	RE	2015/10/11 * 12
MLA-22	Logperiodic Antenna(200-1000MHz)	Schwarzbeck	VUSLP9111B	911B-191	RE	2016/01/30 * 12
MCC-51	Coaxial cable	UL Japan	-	-	RE	2016/07/26 * 12
MAT-70	Attenuator(6dB)	Agilent	8491A-006	MY52460153	RE	2016/04/05 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260834	RE	2016/03/24 * 12
MMM-08	DIGITAL HiTESTER	Hioki	3805	051201197	RE	2016/01/13 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2016/06/24 * 12
MCC-54	Microwave Cable	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2016/03/18 * 12
MPA-22	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400 -33-8P / AMF-4F-2600400 -33-8P	1871355 /1871328	RE	2016/09/06 * 12
MHA-29	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	00152399	RE	2016/09/28 * 12

Test equipment(2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	CE	2016/10/19 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	1501	CE	2016/01/21 * 12
MJM-26	Measure	KOMELON	KMC-36	-	CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	CE	
MTR-10	EMI Test Receiver	Rohde & Schwarz	ESR26	101408	CE	2016/01/29 * 12
MLS-23	LISN(AMN)	Schwarzbeck	NSLK8127	8127-729	CE	2016/07/07 * 12
MAT-67	Attenuator	JFW Industries, Inc.	50FP-013H2 N	-	CE	2016/01/14 * 12
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(5m)/421-010(1m)/sucoform141-PE(1m)/RFM-E121(Switcher)	-/04178	CE	2016/07/20 * 12
MMM-10	DIGITAL HiTESTER	Hioki	3805	051201148	CE	2016/01/18 * 12

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: **CE: Conducted Emission**
RE: Radiated Emission
AT: Antenna Terminal Conducted test