Maximum Power Spectral Density

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11a	

Antenna 0 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]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	Antenna Gain [dBi]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-20.60	1.40	10.13	2.02	0.00	-7.05	11.00	18.05	3.54	-3.51	17.00	20.51
5220	-20.80	1.41	10.13	2.02	0.00	-7.24	11.00	18.24	3.54	-3.70	17.00	20.70
5240	-20.11	1.41	10.13	2.02	0.00	-6.55	11.00	17.55	3.54	-3.01	17.00	20.01
5260	-20.22	1.41	10.14	2.02	0.00	-6.65	11.00	17.65	3.54	-3.11	17.00	20.11
5300	-20.75	1.41	10.14	2.02	0.00	-7.18	11.00	18.18	3.54	-3.64	17.00	20.64
5320	-20.38	1.41	10.14	2.02	0.00	-6.81	11.00	17.81	3.54	-3.27	17.00	20.27
5500	-21.04	1.41	10.14	2.02	0.00	-7.47	11.00	18.47	3.54	-3.93	17.00	20.93
5580	-21.13	1.42	10.15	2.02	0.00	-7.54	11.00	18.54	3.54	-4.00	17.00	21.00
5700	-21.27	1.42	10.15	2.02	0.00	-7.68	11.00	18.68	3.54	-4.14	17.00	21.14
5745	-24.50	1.42	10.16	2.02	0.27	-10.63	30.00	40.63	3.54	-7.09	36.00	43.09
5785	-25.30	1.42	10.16	2.02	0.27	-11.43	30.00	41.43	3.54	-7.89	36.00	43.89
5825	-25.65	1.42	10.16	2.02	0.27	-11.78	30.00	41.78	3.54	-8.24	36.00	44.24

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

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

Antenna 0+1 Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)				
	Antenna			Result	Limit	Margin	Antenna Gain	Result		Limit	Margin
	0	1	Sum								
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBi]	[dBm/MHz]	[mW/MHz]	[dBm/MHz]	[dB]
5180	0.22	0.20	0.42	-3.79	11.00	14.79	5.67	1.88	1.54	17.00	15.12
5220	0.19	0.20	0.40	-4.01	11.00	15.01	5.67	1.66	1.47	17.00	15.34
5240	0.23	0.20	0.43	-3.65	11.00	14.65	5.67	2.02	1.59	17.00	14.98
5260	0.21	0.21	0.42	-3.76	11.00	14.76	5.67	1.91	1.55	17.00	15.09
5300	0.20	0.19	0.39	-4.13	11.00	15.13	5.67	1.54	1.42	17.00	15.46
5320	0.21	0.18	0.39	-4.13	11.00	15.13	5.67	1.54	1.43	17.00	15.46
5500	0.19	0.14	0.33	-4.75	11.00	15.75	5.67	0.92	1.23	17.00	16.08
5580	0.16	0.14	0.31	-5.15	11.00	16.15	5.67	0.52	1.13	17.00	16.48
5700	0.17	0.16	0.32	-4.94	11.00	15.94	5.67	0.73	1.18	17.00	16.27
5745	0.10	0.10	0.19	-7.17	30.00	37.17	5.67	-1.50	0.71	36.00	37.50
5785	0.09	0.10	0.19	-7.22	30.00	37.22	5.67	-1.55	0.70	36.00	37.55
5825	0.08	0.09	0.18	-7.47	30.00	37.47	5.67	-1.80	0.66	36.00	37.80

			Antenna 0				**Antenna 1**			
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]
5180	3.18	0.00	-21.25	1.40	10.13	-6.54	-21.78	1.40	10.13	-7.07
5220	3.18	0.00	-21.83	1.41	10.13	-7.11	-21.65	1.41	10.13	-6.93
5240	3.18	0.00	-21.14	1.41	10.13	-6.42	-21.64	1.41	10.13	-6.92
5260	3.18	0.00	-21.55	1.41	10.14	-6.82	-21.44	1.41	10.14	-6.71
5300	3.18	0.00	-21.81	1.41	10.14	-7.08	-21.94	1.41	10.14	-7.21
5320	3.18	0.00	-21.52	1.41	10.14	-6.79	-22.24	1.41	10.14	-7.51
5500	3.18	0.00	-21.93	1.41	10.14	-7.20	-23.14	1.41	10.14	-8.41
5580	3.18	0.00	-22.62	1.42	10.15	-7.87	-23.23	1.42	10.15	-8.48
5700	3.18	0.00	-22.56	1.42	10.15	-7.81	-22.84	1.42	10.15	-8.09
5745	3.18	0.27	-25.18	1.42	10.16	-10.15	-25.24	1.42	10.16	-10.21
5785	3.18	0.27	-25.49	1.42	10.16	-10.46	-25.05	1.42	10.16	-10.02
5825	3.18	0.27	-25.78	1.42	10.16	-10.75	-25.26	1.42	10.16	-10.23

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

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

Antenna 0+1 Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)				
	Antenna			Result	Limit	Margin	Antenna Gain	Result		Limit	Margin
	0	1	Sum								
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBi]	[dBm/MHz]	[mW/MHz]	[dBm/MHz]	[dB]
5180	0.16	0.15	0.30	-5.18	11.00	16.18	5.67	0.49	1.12	17.00	16.51
5220	0.16	0.16	0.32	-4.95	11.00	15.95	5.67	0.72	1.18	17.00	16.28
5240	0.16	0.18	0.35	-4.62	11.00	15.62	5.67	1.05	1.27	17.00	15.95
5260	0.16	0.16	0.32	-4.92	11.00	15.92	5.67	0.75	1.19	17.00	16.25
5300	0.14	0.15	0.29	-5.32	11.00	16.32	5.67	0.35	1.08	17.00	16.65
5320	0.15	0.14	0.29	-5.34	11.00	16.34	5.67	0.33	1.08	17.00	16.67
5500	0.16	0.13	0.29	-5.34	11.00	16.34	5.67	0.33	1.08	17.00	16.67
5580	0.14	0.12	0.26	-5.82	11.00	16.82	5.67	-0.15	0.97	17.00	17.15
5700	0.13	0.13	0.27	-5.76	11.00	16.76	5.67	-0.09	0.98	17.00	17.09
5745	0.07	0.08	0.15	-8.26	30.00	38.26	5.67	-2.59	0.55	36.00	38.59
5785	0.07	0.08	0.15	-8.16	30.00	38.16	5.67	-2.49	0.56	36.00	38.49
5825	0.07	0.08	0.15	-8.14	30.00	38.14	5.67	-2.47	0.57	36.00	38.47

			Antenna 0				**Antenna 1**			
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]
5180	1.99	0.00	-21.57	1.40	10.13	-8.05	-21.85	1.40	10.13	-8.33
5220	1.99	0.00	-21.46	1.41	10.13	-7.93	-21.52	1.41	10.13	-7.99
5240	1.99	0.00	-21.45	1.41	10.13	-7.92	-20.89	1.41	10.13	-7.36
5260	1.99	0.00	-21.46	1.41	10.14	-7.92	-21.49	1.41	10.14	-7.95
5300	1.99	0.00	-21.97	1.41	10.14	-8.43	-21.77	1.41	10.14	-8.23
5320	1.99	0.00	-21.73	1.41	10.14	-8.19	-22.07	1.41	10.14	-8.53
5500	1.99	0.00	-21.43	1.41	10.14	-7.89	-22.40	1.41	10.14	-8.86
5580	1.99	0.00	-22.16	1.42	10.15	-8.60	-22.64	1.42	10.15	-9.08
5700	1.99	0.00	-22.35	1.42	10.15	-8.79	-22.31	1.42	10.15	-8.75
5745	1.99	0.27	-25.35	1.42	10.16	-11.52	-24.87	1.42	10.16	-11.03
5785	1.99	0.27	-25.50	1.42	10.16	-11.66	-24.56	1.42	10.16	-10.73
5825	1.99	0.27	-25.43	1.42	10.16	-11.59	-24.60	1.42	10.16	-10.76

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

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-40	

Antenna 0+1 Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted) Antenna 0	Antenna 1	Sum	Result	Limit	Margin	PSD (e.i.r.p.) Antenna Gain	Result		Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBi]	[dBm/MHz]	[mW/MHz]	[dBm/MHz]	[dB]
5190	0.07	0.06	0.13	-8.82	11.00	19.82	5.67	-3.15	0.48	17.00	20.15
5230	0.07	0.07	0.14	-8.66	11.00	19.66	5.67	-2.99	0.50	17.00	19.99
5270	0.06	0.06	0.13	-9.00	11.00	20.00	5.67	-3.33	0.46	17.00	20.33
5310	0.06	0.06	0.12	-9.21	11.00	20.21	5.67	-3.54	0.44	17.00	20.54
5510	0.06	0.05	0.11	-9.64	11.00	20.64	5.67	-3.97	0.40	17.00	20.97
5550	0.05	0.05	0.10	-10.08	11.00	21.08	5.67	-4.41	0.36	17.00	21.41
5670	0.06	0.07	0.13	-8.97	11.00	19.97	5.67	-3.30	0.47	17.00	20.30
5755	0.03	0.03	0.07	-11.86	30.00	41.86	5.67	-6.19	0.24	36.00	42.19
5795	0.03	0.03	0.06	-12.05	30.00	42.05	5.67	-6.38	0.23	36.00	42.38

			Antenna 0				**Antenna 1**			
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]
5190	3.67	0.00	-26.76	1.40	10.13	-11.56	-27.31	1.40	10.13	-12.11
5230	3.67	0.00	-26.96	1.41	10.13	-11.75	-26.80	1.41	10.13	-11.59
5270	3.67	0.00	-27.18	1.41	10.14	-11.96	-27.29	1.41	10.14	-12.07
5310	3.67	0.00	-27.16	1.41	10.14	-11.94	-27.73	1.41	10.14	-12.51
5510	3.67	0.00	-27.49	1.42	10.15	-12.25	-28.33	1.42	10.15	-13.09
5550	3.67	0.00	-28.17	1.42	10.15	-12.93	-28.50	1.42	10.15	-13.26
5670	3.67	0.00	-27.55	1.42	10.15	-12.31	-26.91	1.42	10.15	-11.67
5755	3.67	0.27	-30.35	1.42	10.16	-14.83	-30.42	1.42	10.16	-14.90
5795	3.67	0.27	-30.58	1.42	10.16	-15.06	-30.58	1.42	10.16	-15.06

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (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

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-40	

Antenna 0+1 Applied limit: 15.407, mobile and portable client device

Tested	PSD (Conducted)							PSD (e.i.r.p.)			
Frequency	Antenna			Result	Limit	Margin	Antenna	Result		Limit	Margin
	0	1	Sum				Gain				
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBi]	[dBm/MHz]	[mW/MHz]	[dBm/MHz]	[dB]
5190	0.07	0.06	0.13	-8.82	11.00	19.82	5.67	-3.15	0.48	17.00	20.15
5230	0.07	0.06	0.14	-8.62	11.00	19.62	5.67	-2.95	0.51	17.00	19.95
5270	0.07	0.06	0.13	-8.77	11.00	19.77	5.67	-3.10	0.49	17.00	20.10
5310	0.07	0.06	0.13	-8.93	11.00	19.93	5.67	-3.26	0.47	17.00	20.26
5510	0.06	0.05	0.11	-9.43	11.00	20.43	5.67	-3.76	0.42	17.00	20.76
5550	0.05	0.05	0.10	-9.87	11.00	20.87	5.67	-4.20	0.38	17.00	21.20
5670	0.06	0.06	0.11	-9.46	11.00	20.46	5.67	-3.79	0.42	17.00	20.79
5755	0.03	0.03	0.06	-12.00	30.00	42.00	5.67	-6.33	0.23	36.00	42.33
5795	0.03	0.03	0.06	-12.40	30.00	42.40	5.67	-6.73	0.21	36.00	42.73

			Antenna 0				**Antenna 1**			
Tested	Duty	RBW	PSD	Cable	Atten.	PSD	PSD	Cable	Atten.	PSD
Frequency	Factor	Correction	Reading	Loss	Loss	Result	Reading	Loss	Loss	Result
		Factor				Cond.				Cond.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]
5190	2.06	0.00	-25.09	1.40	10.13	-11.50	-25.77	1.40	10.13	-12.18
5230	2.06	0.00	-24.96	1.41	10.13	-11.36	-25.51	1.41	10.13	-11.91
5270	2.06	0.00	-25.23	1.41	10.14	-11.62	-25.55	1.41	10.14	-11.94
5310	2.06	0.00	-25.35	1.41	10.14	-11.74	-25.77	1.41	10.14	-12.16
5510	2.06	0.00	-25.54	1.42	10.15	-11.91	-26.68	1.42	10.15	-13.05
5550	2.06	0.00	-26.26	1.42	10.15	-12.63	-26.78	1.42	10.15	-13.15
5670	2.06	0.00	-26.13	1.42	10.15	-12.50	-26.06	1.42	10.15	-12.43
5755	2.06	0.27	-28.78	1.42	10.16	-14.87	-29.07	1.42	10.16	-15.16
5795	2.06	0.27	-29.25	1.42	10.16	-15.34	-29.38	1.42	10.16	-15.47

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

Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-80	

Antenna 0+1 Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted) Antenna 0	Antenna 1	Sum	Result	Limit	Margin	PSD (e.i.r.p.) Antenna Gain	Result		Limit	Margin
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dBi]	[dBm/MHz]	[mW/MHz]	[dBm/MHz]	[dB]
5210	0.03	0.02	0.06	-12.56	11.00	23.56	5.67	-6.89	0.20	17.00	23.89
5290	0.03	0.02	0.05	-12.90	11.00	23.90	5.67	-7.23	0.19	17.00	24.23
5530	0.02	0.02	0.04	-13.52	11.00	24.52	5.67	-7.85	0.16	17.00	24.85
5610	0.02	0.02	0.05	-13.29	11.00	24.29	5.67	-7.62	0.17	17.00	24.62
5775	0.02	0.01	0.03	-15.23	30.00	45.23	5.67	-9.56	0.11	36.00	45.56

			Antenna 0				**Antenna 1**			
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.	PSD Reading	Cable Loss	Atten. Loss	PSD Result Cond.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBm/MHz]
5210	4.92	0.00	-31.57	1.41	10.13	-15.11	-32.54	1.41	10.13	-16.08
5290	4.92	0.00	-31.83	1.41	10.14	-15.36	-33.01	1.41	10.14	-16.54
5530	4.92	0.00	-32.61	1.42	10.15	-16.12	-33.47	1.42	10.15	-16.98
5610	4.92	0.00	-32.54	1.42	10.15	-16.05	-33.06	1.42	10.15	-16.57
5775	4.92	0.27	-34.87	1.42	10.16	-18.10	-35.15	1.42	10.16	-18.38

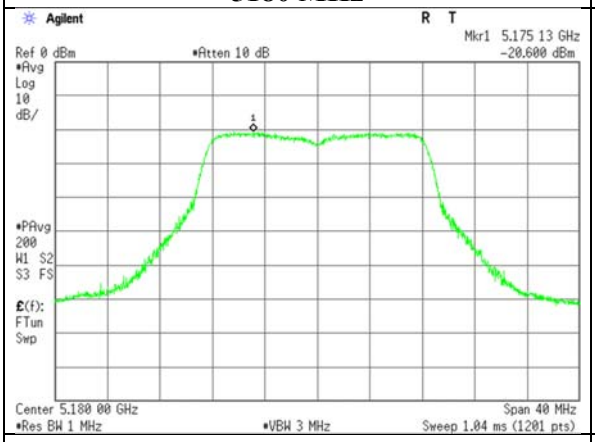
Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty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

Maximum Power Spectral Density

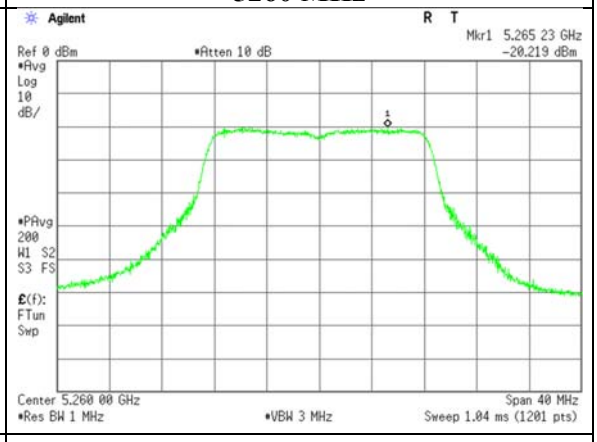
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Temperature / Humidity	Ryota Yamanaka	Ryota Yamanaka
Engineer	March 22, 2019	March 25, 2019
Mode	Tx 11a	

11a, Antenna 0

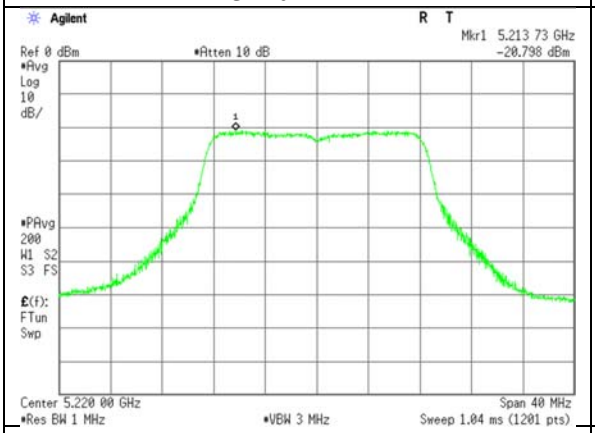
5180 MHz



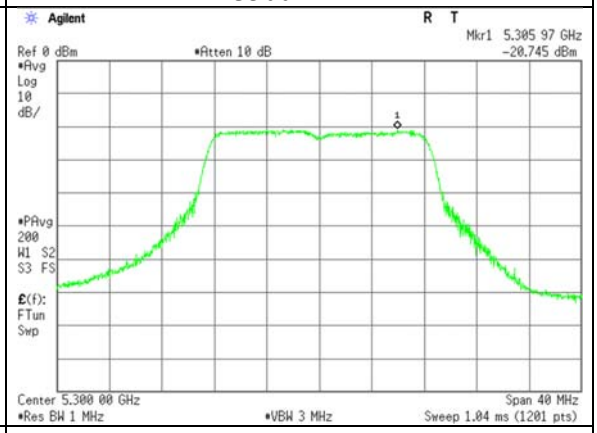
5260 MHz



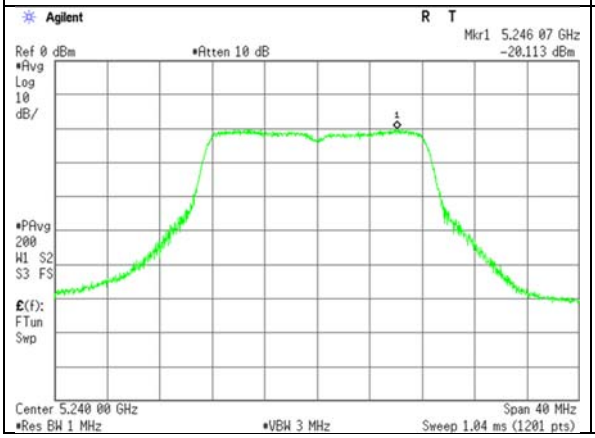
5220 MHz



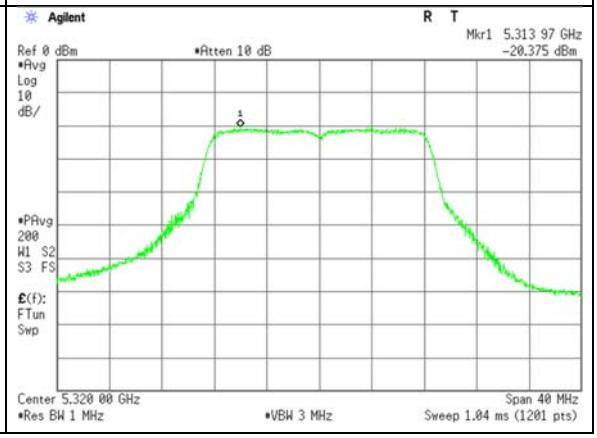
5300 MHz



5240 MHz



5320 MHz

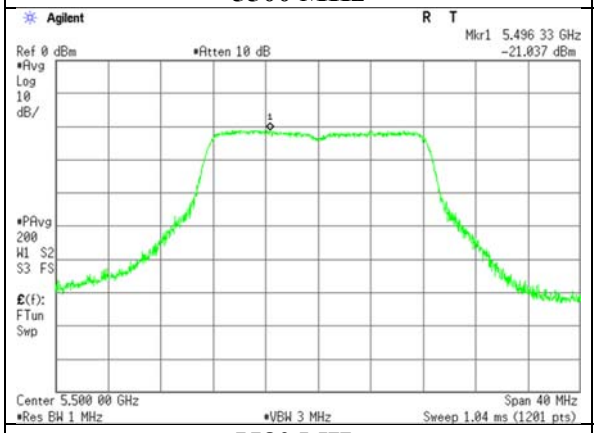


Maximum Power Spectral Density

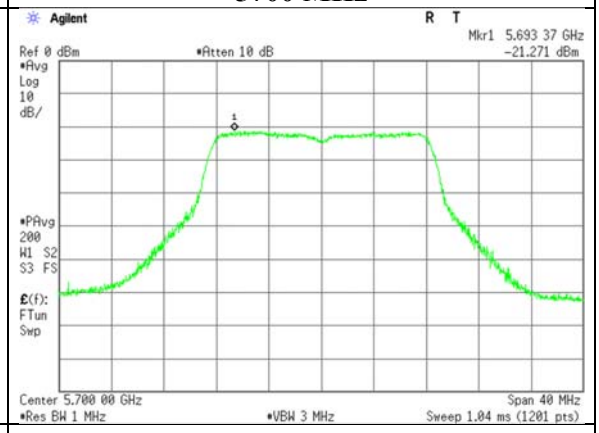
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11a	

11a, Antenna 0

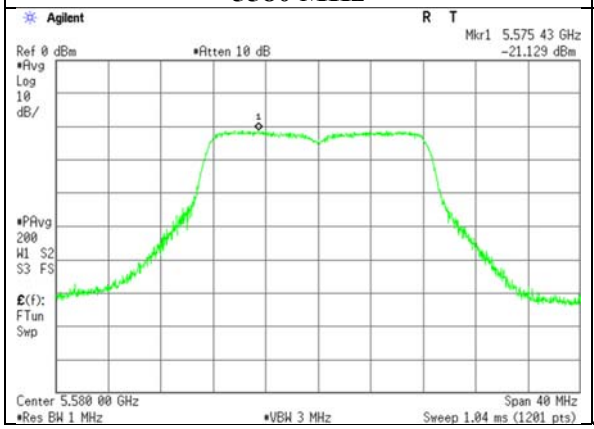
5500 MHz



5700 MHz



5580 MHz

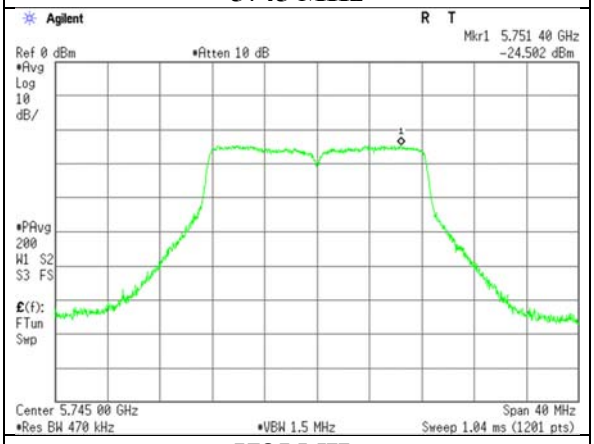


Maximum Power Spectral Density

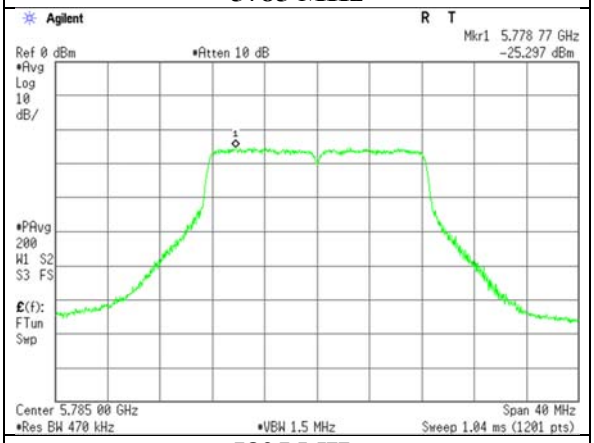
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11a	

11a, Antenna 0

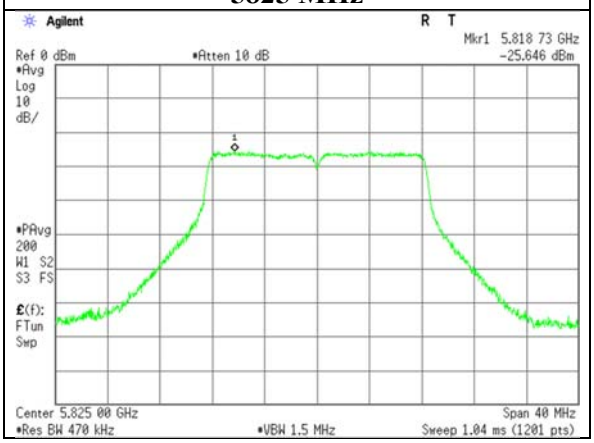
5745 MHz



5785 MHz



5825 MHz

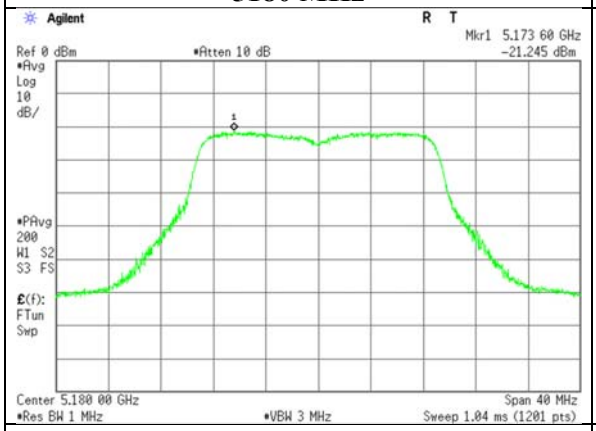


Maximum Power Spectral Density

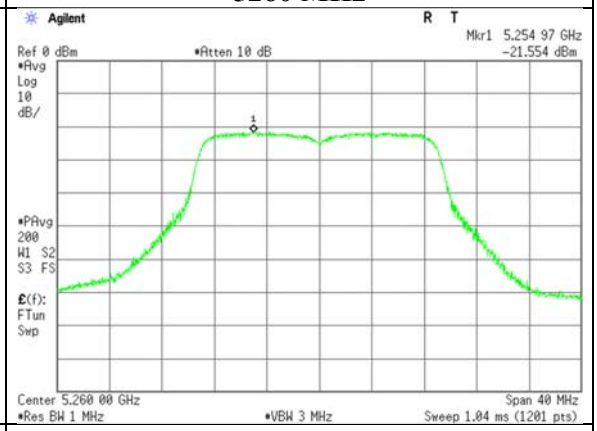
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 0

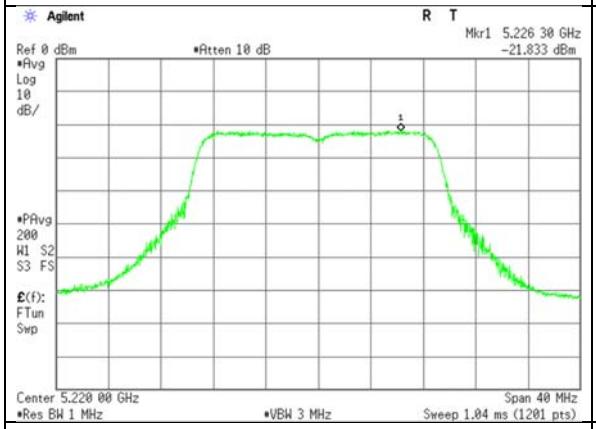
5180 MHz



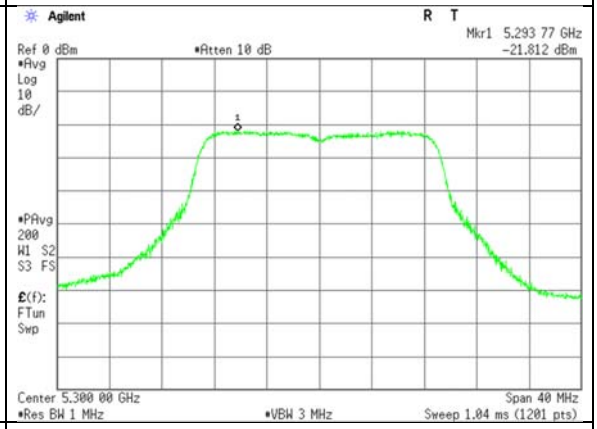
5260 MHz



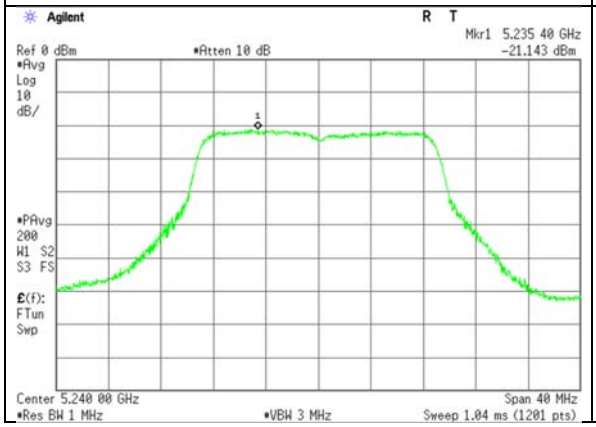
5220 MHz



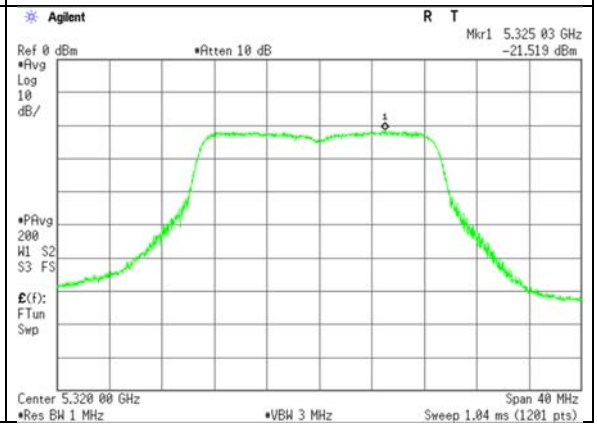
5300 MHz



5240 MHz



5320 MHz

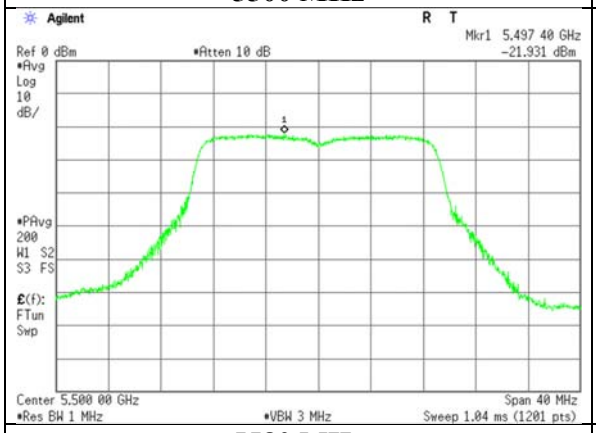


Maximum Power Spectral Density

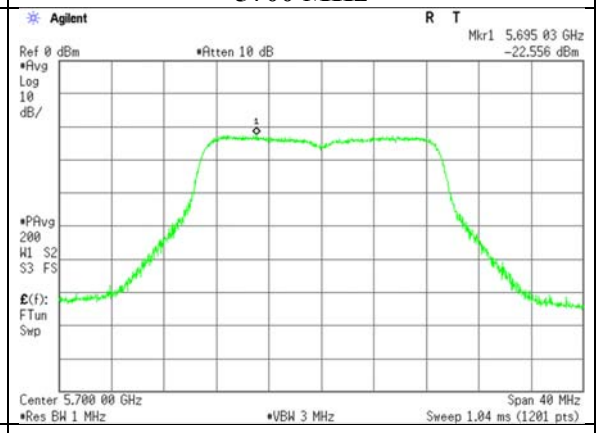
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 0

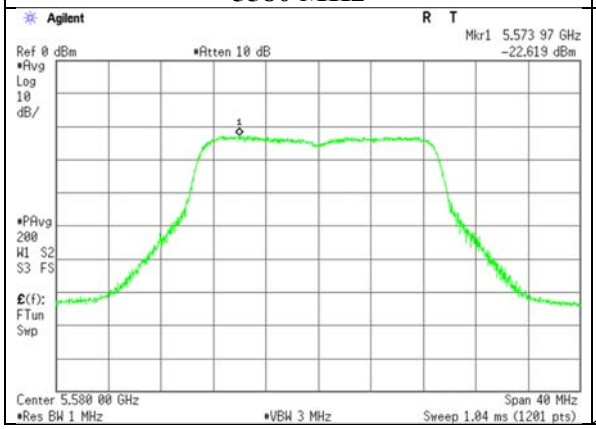
5500 MHz



5700 MHz



5580 MHz

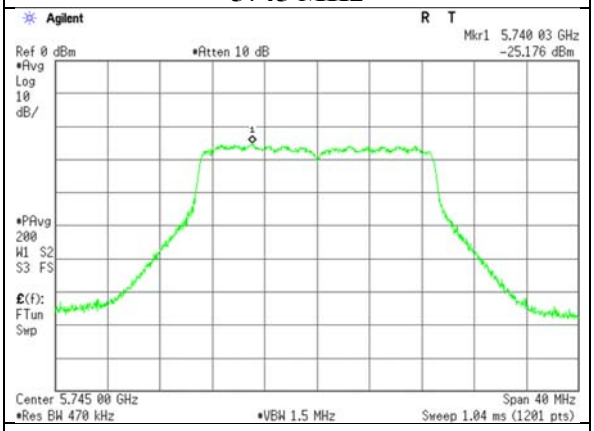


Maximum Power Spectral Density

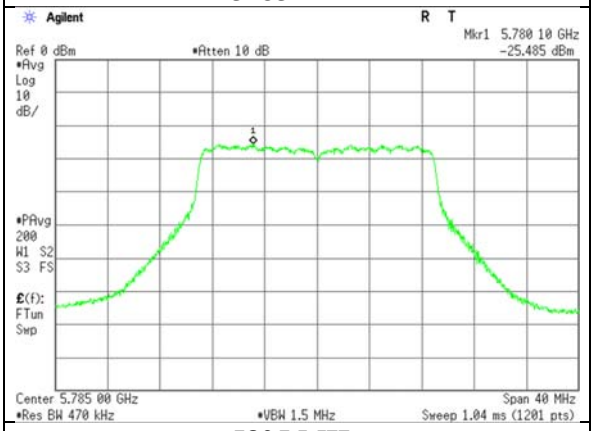
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 0

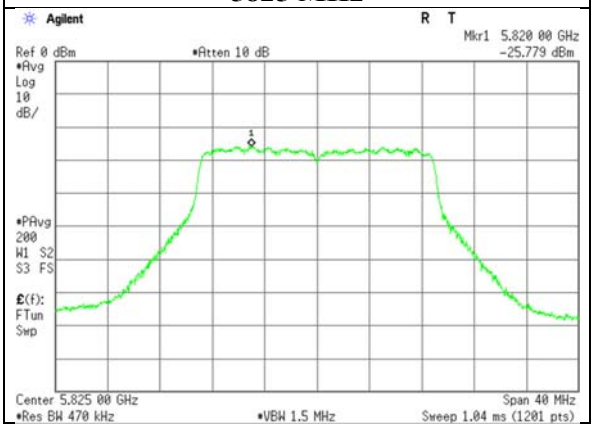
5745 MHz



5785 MHz



5825 MHz

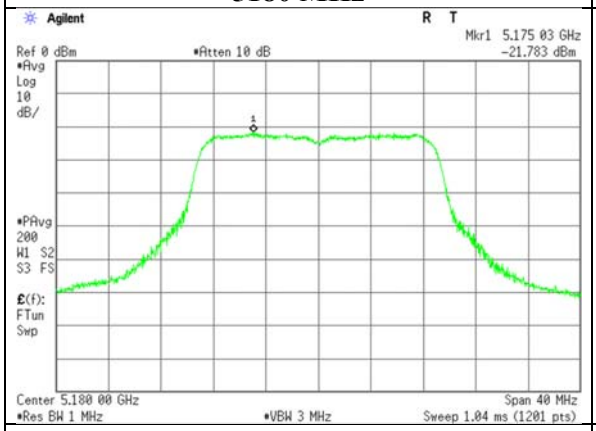


Maximum Power Spectral Density

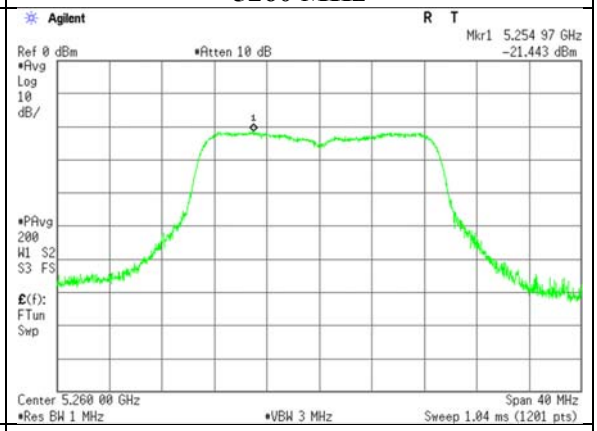
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 1

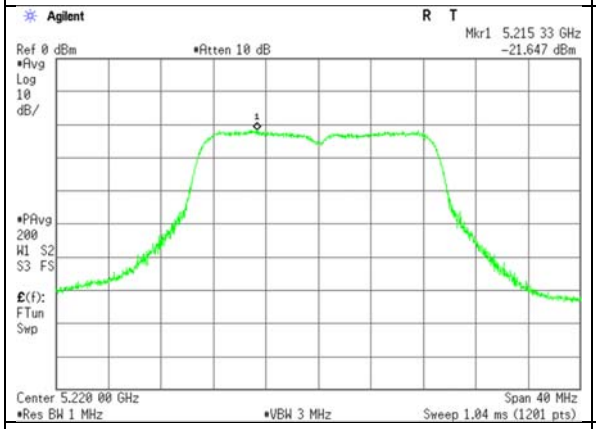
5180 MHz



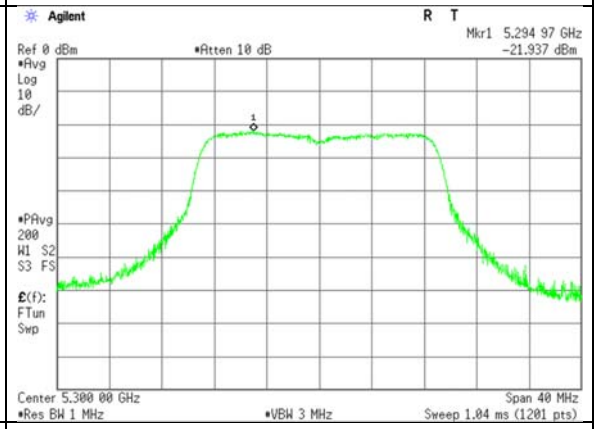
5260 MHz



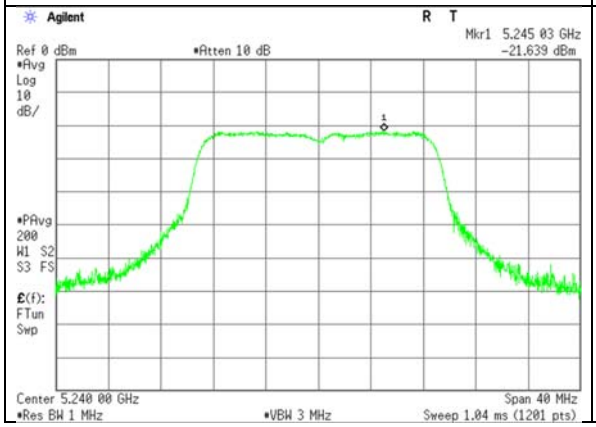
5220 MHz



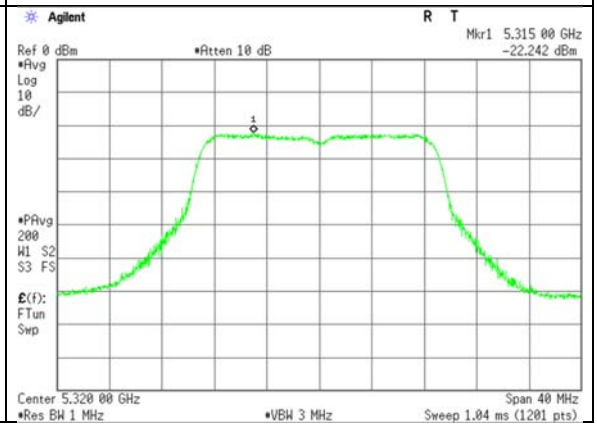
5300 MHz



5240 MHz



5320 MHz

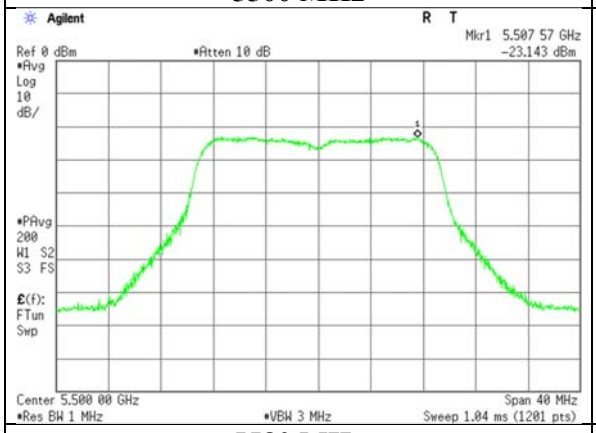


Maximum Power Spectral Density

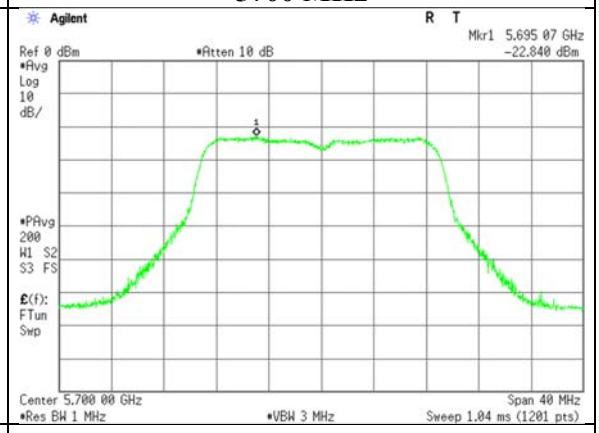
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 1

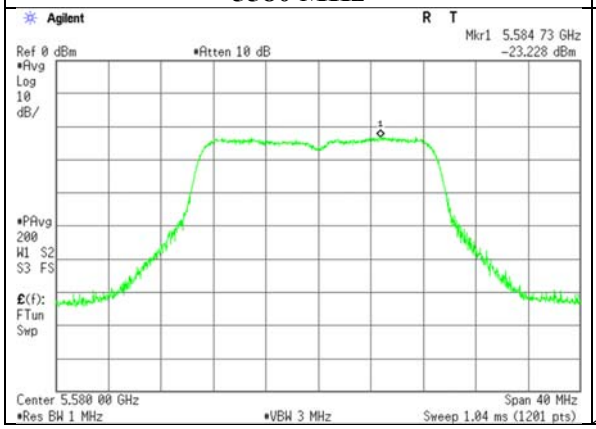
5500 MHz



5700 MHz



5580 MHz

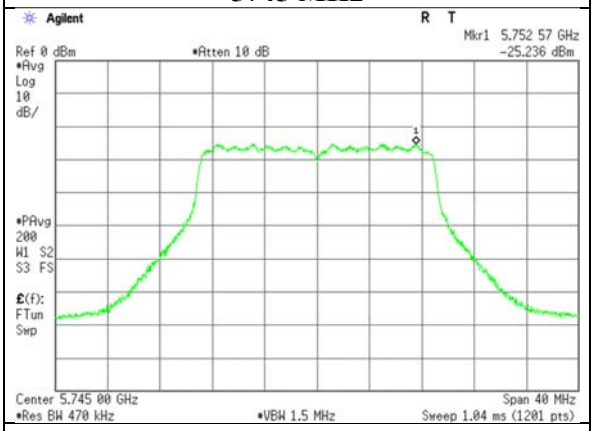


Maximum Power Spectral Density

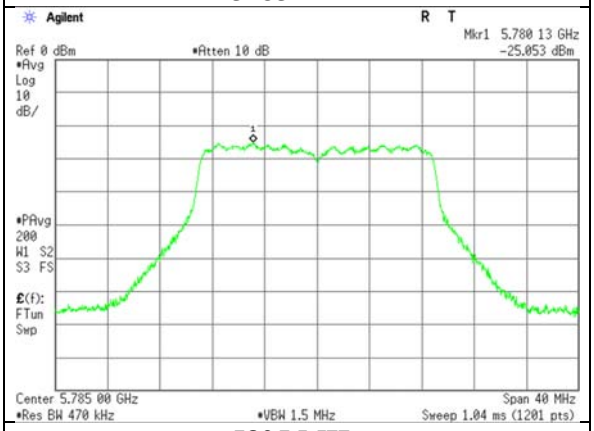
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-20	

11n-20, Antenna 1

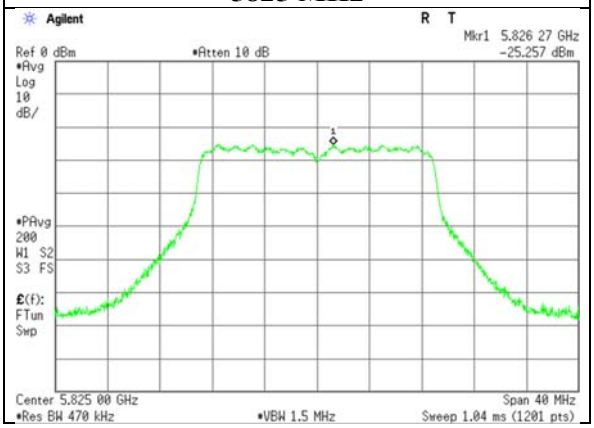
5745 MHz



5785 MHz



5825 MHz

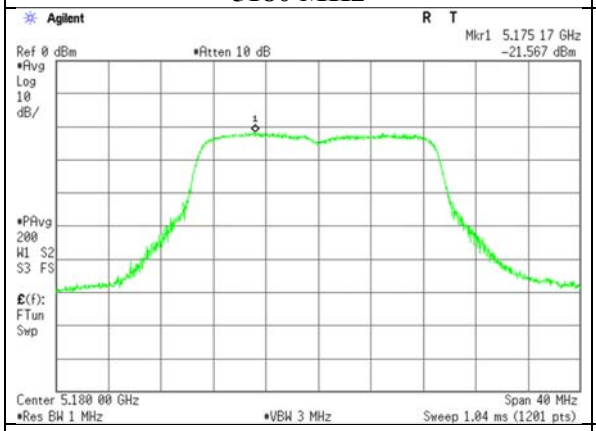


Maximum Power Spectral Density

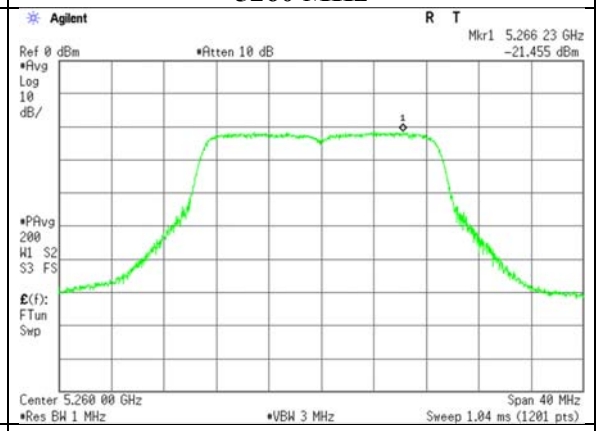
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 0

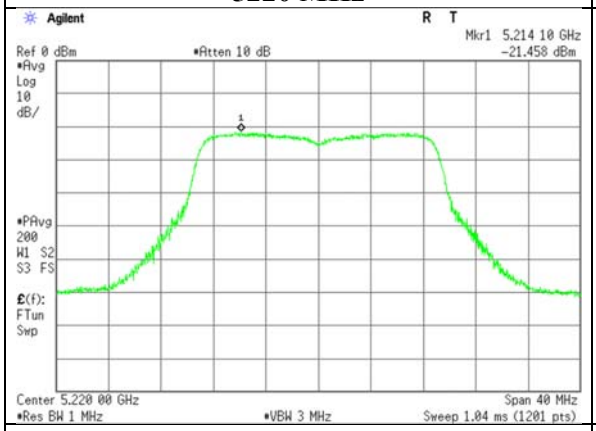
5180 MHz



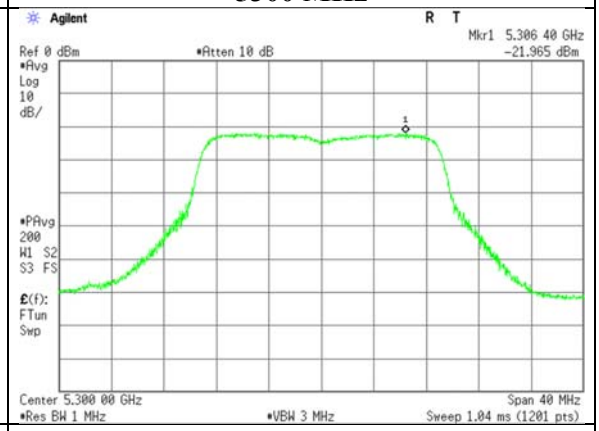
5260 MHz



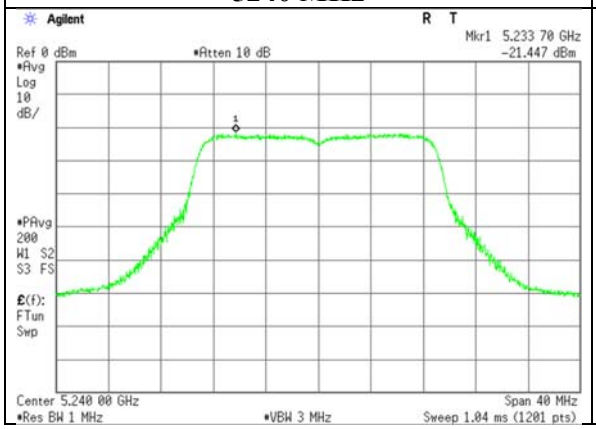
5220 MHz



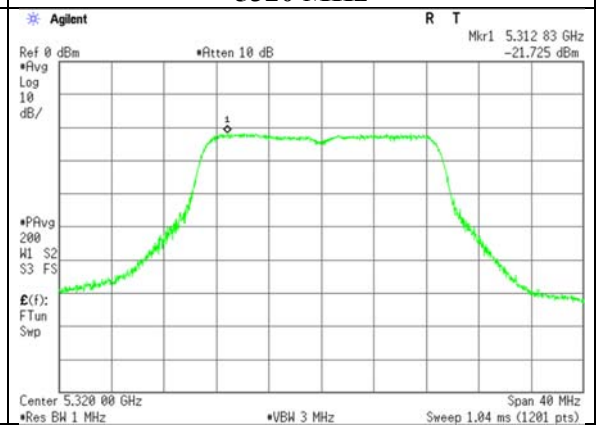
5300 MHz



5240 MHz



5320 MHz

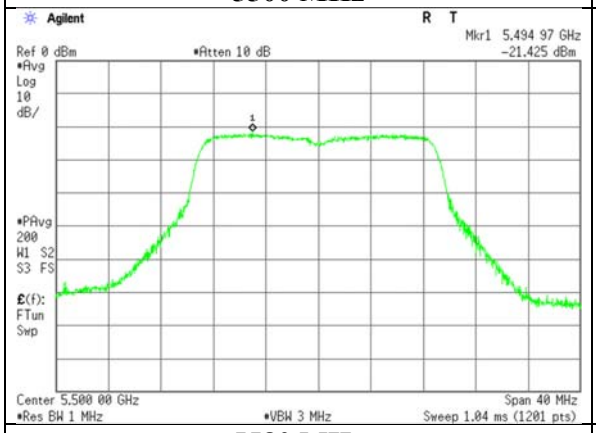


Maximum Power Spectral Density

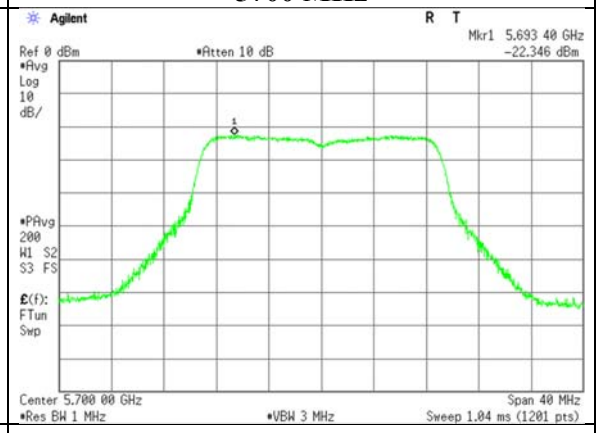
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 0

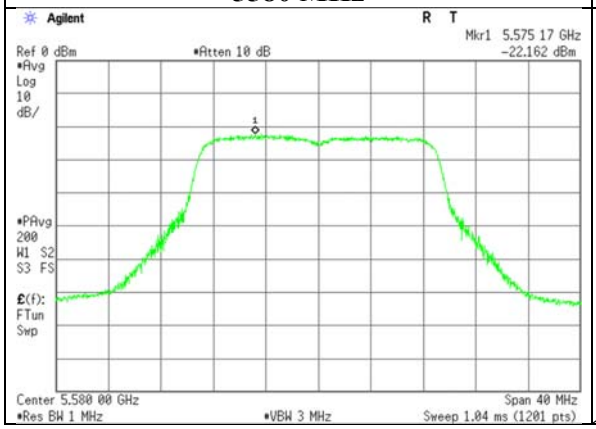
5500 MHz



5700 MHz



5580 MHz

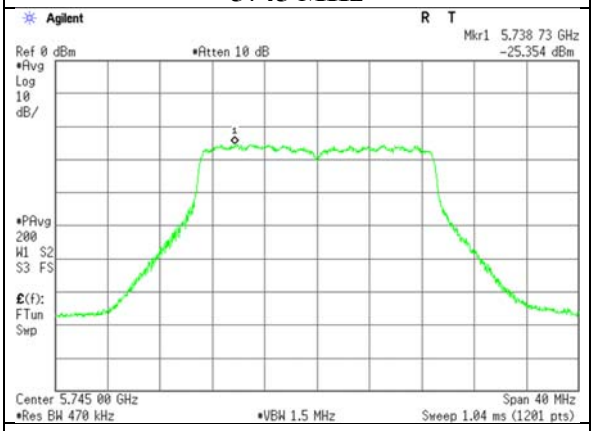


Maximum Power Spectral Density

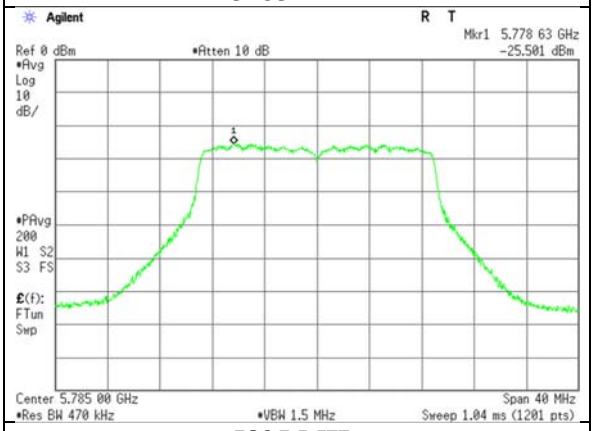
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 0

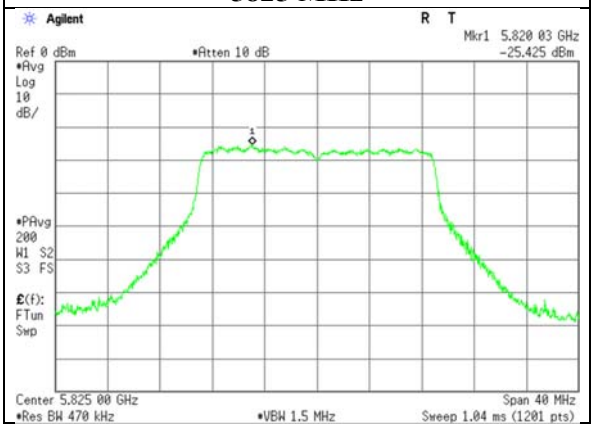
5745 MHz



5785 MHz



5825 MHz

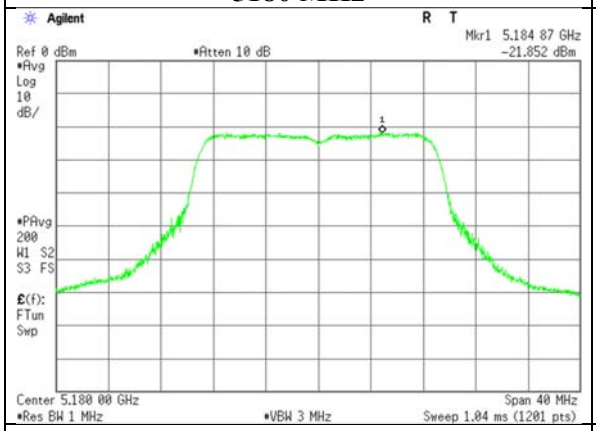


Maximum Power Spectral Density

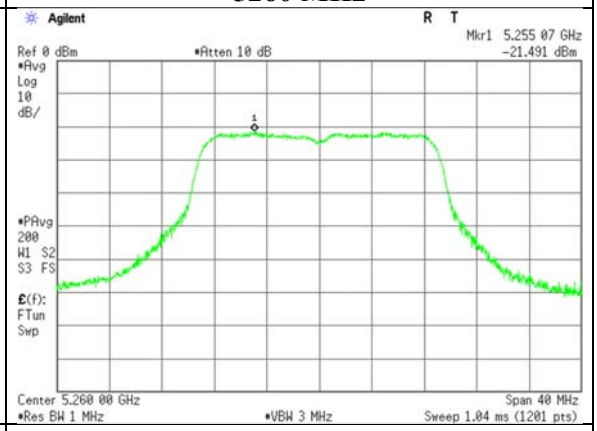
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 1

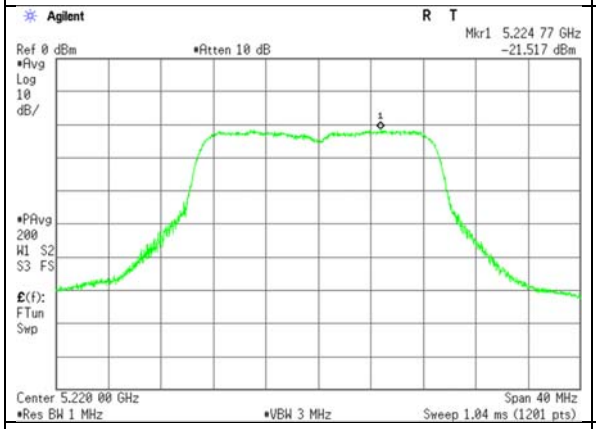
5180 MHz



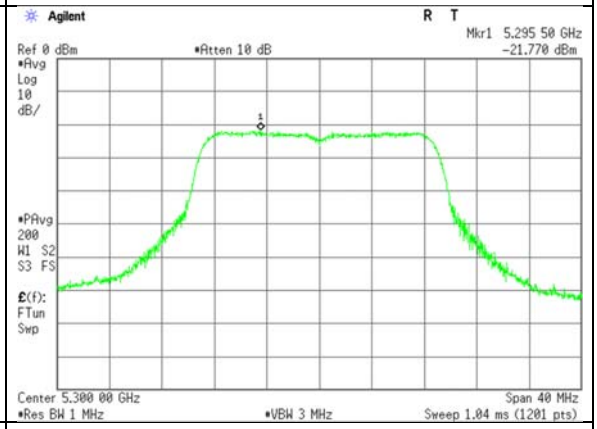
5260 MHz



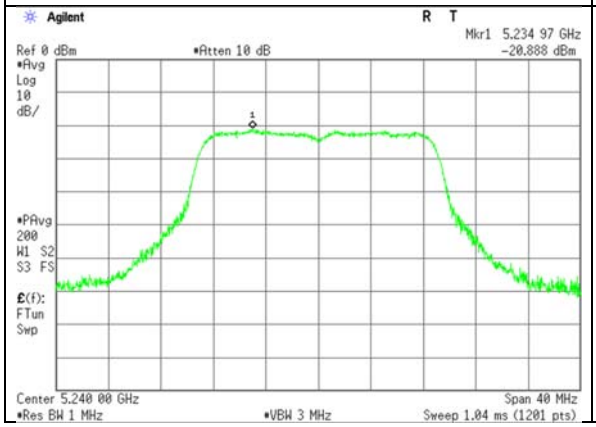
5220 MHz



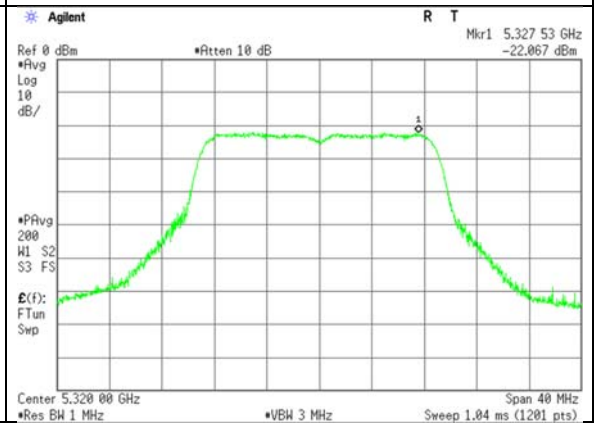
5300 MHz



5240 MHz



5320 MHz

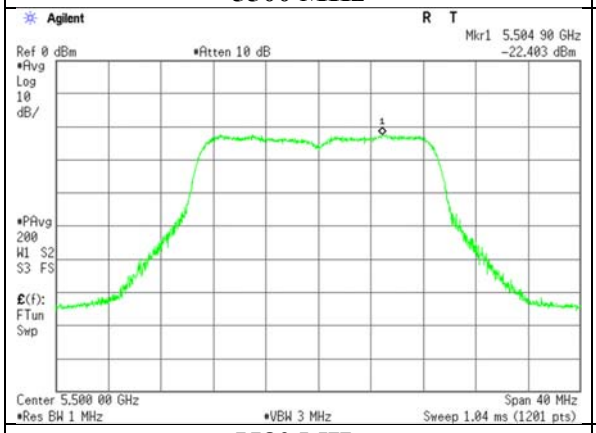


Maximum Power Spectral Density

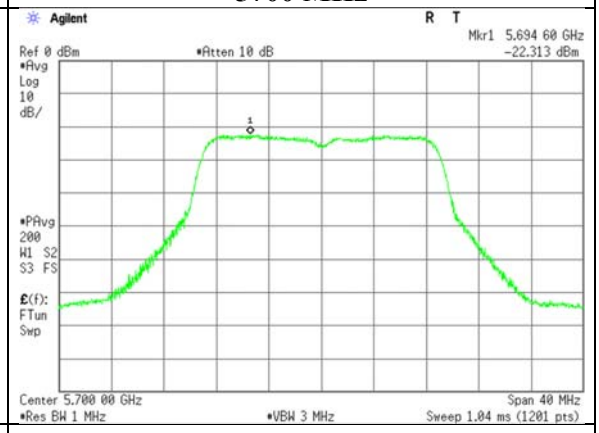
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 1

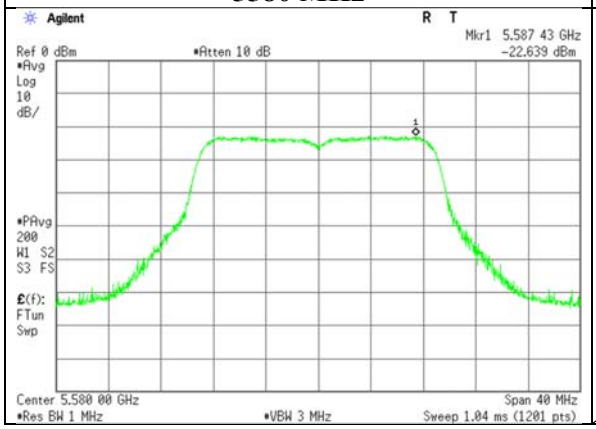
5500 MHz



5700 MHz



5580 MHz

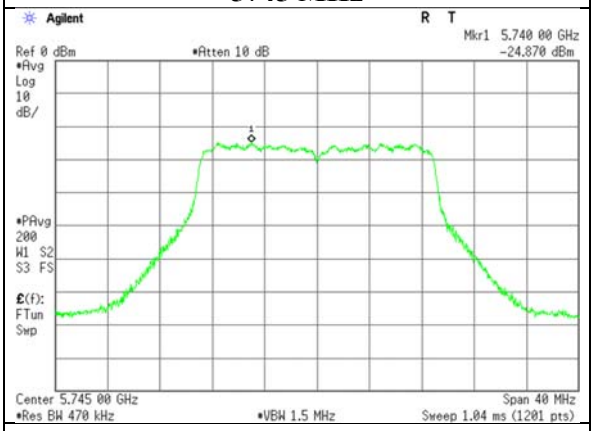


Maximum Power Spectral Density

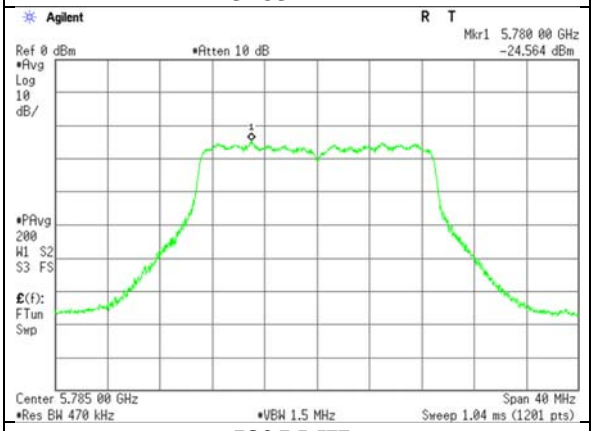
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-20	

11ac-20, Antenna 1

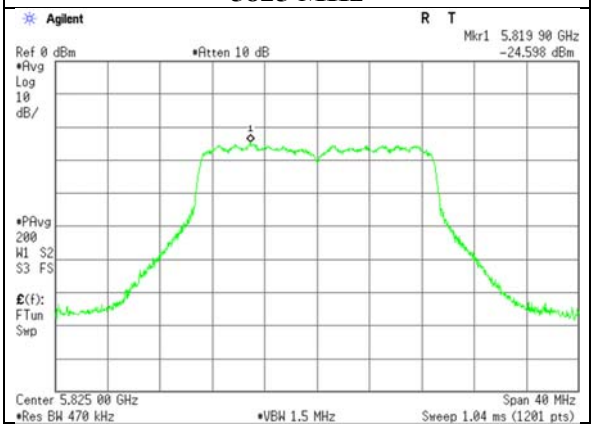
5745 MHz



5785 MHz



5825 MHz

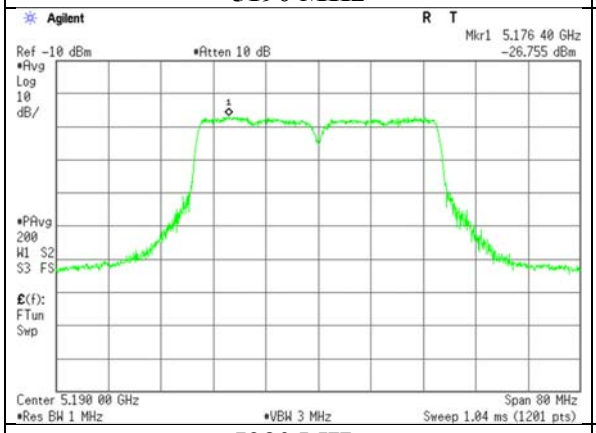


Maximum Power Spectral Density

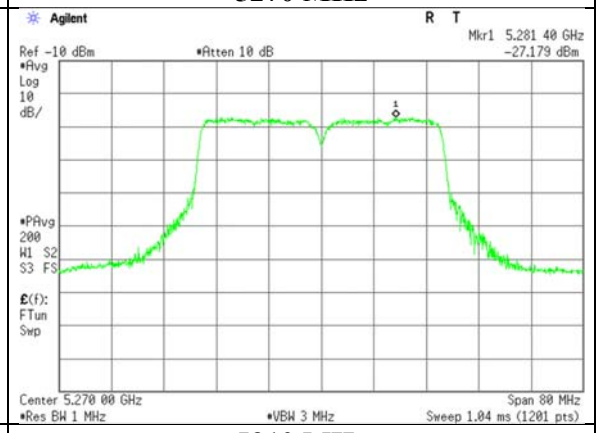
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-40	

11n-40, Antenna 0

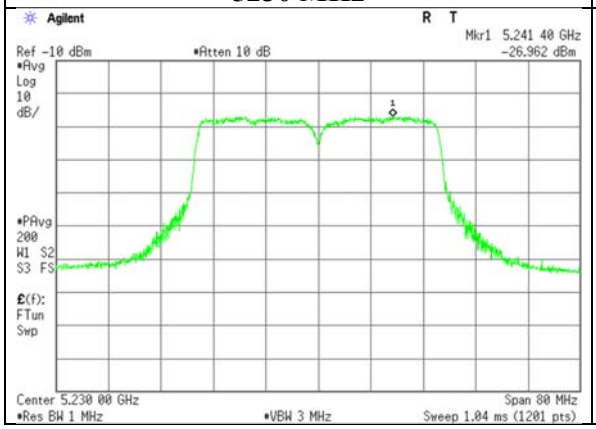
5190 MHz



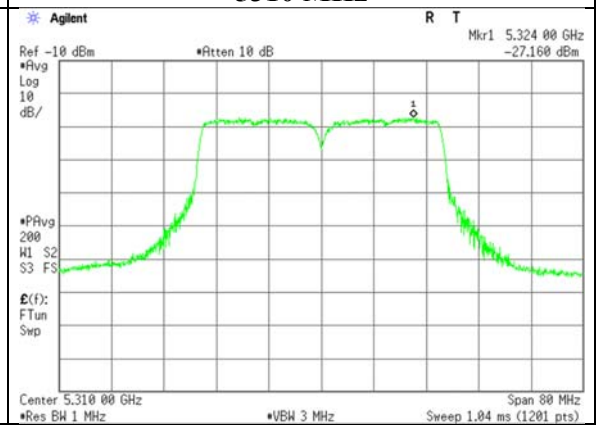
5270 MHz



5230 MHz



5310 MHz

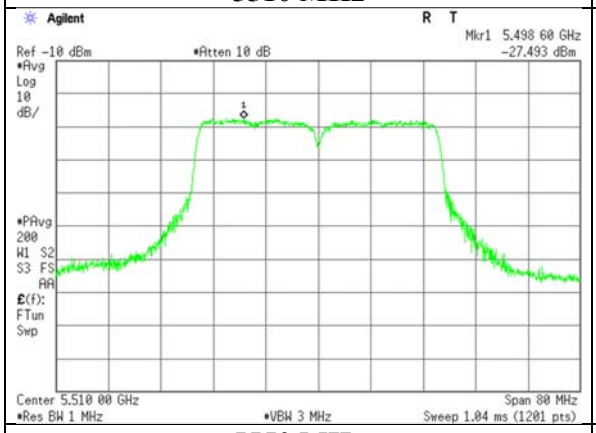


Maximum Power Spectral Density

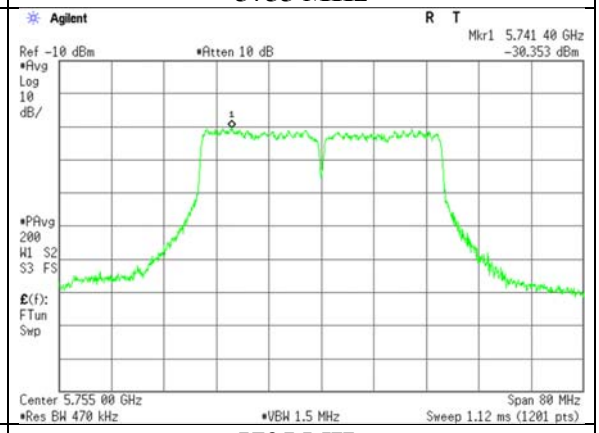
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-40	

11n-40, Antenna 0

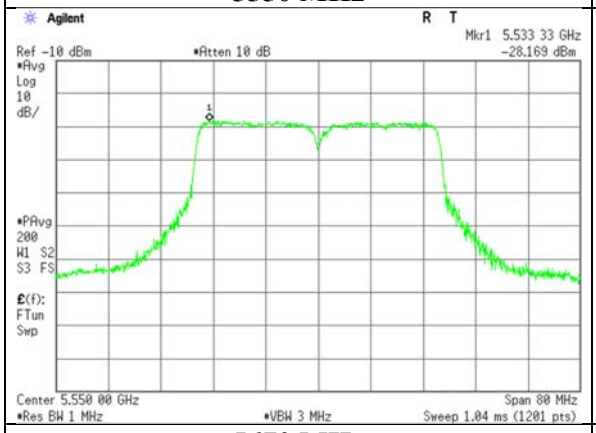
5510 MHz



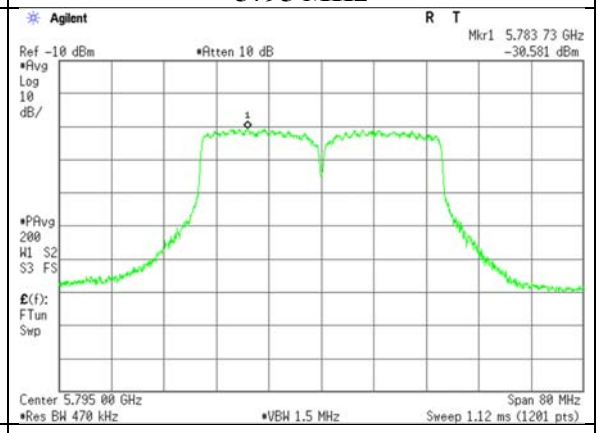
5755 MHz



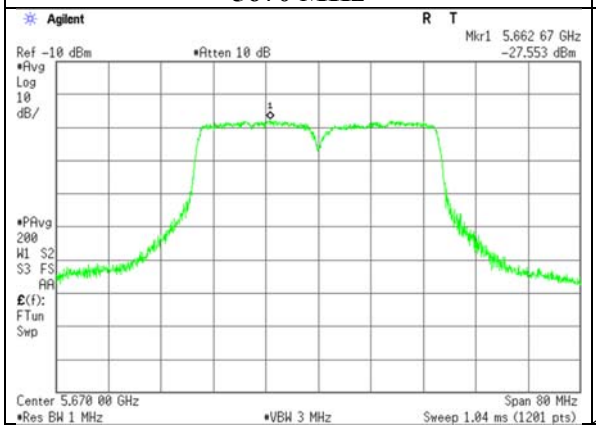
5550 MHz



5795 MHz



5670 MHz

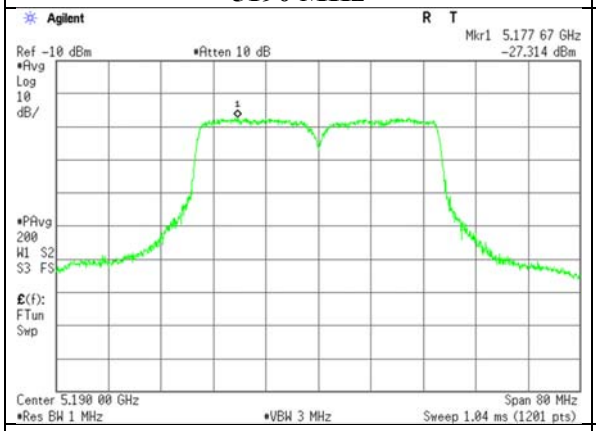


Maximum Power Spectral Density

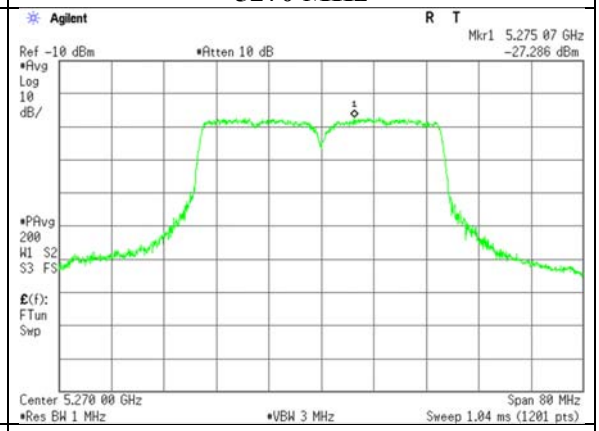
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-40	

11n-40, Antenna 1

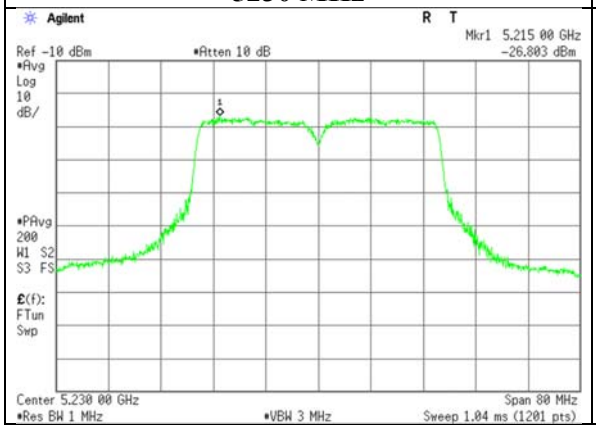
5190 MHz



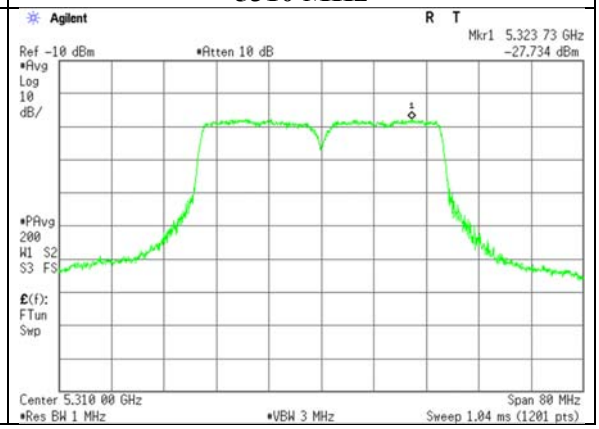
5270 MHz



5230 MHz



5310 MHz

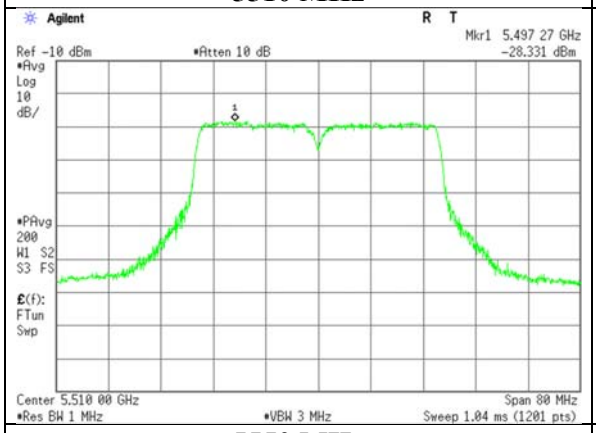


Maximum Power Spectral Density

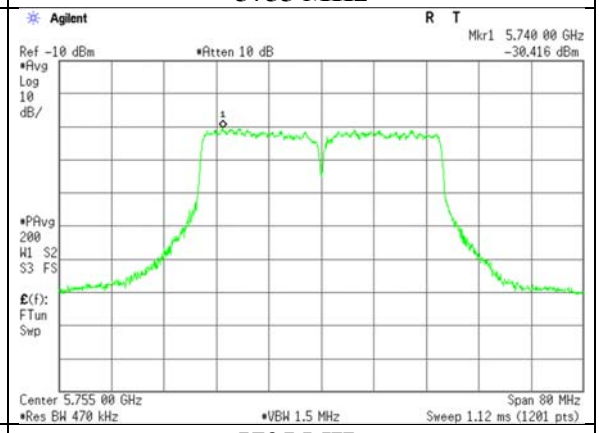
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11n-40	

11n-40, Antenna 1

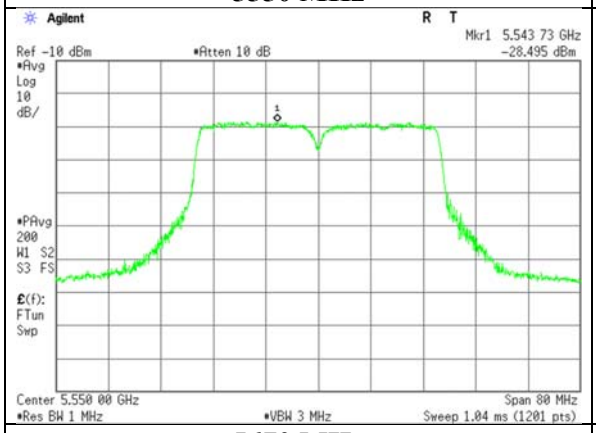
5510 MHz



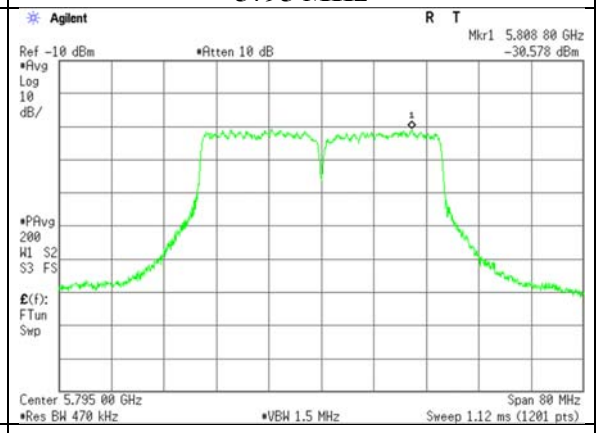
5755 MHz



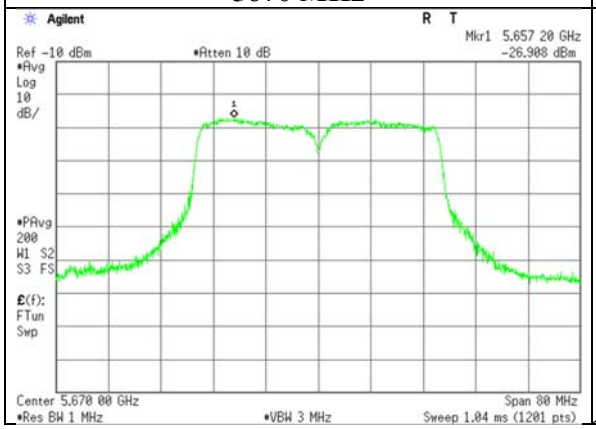
5550 MHz



5795 MHz



5670 MHz

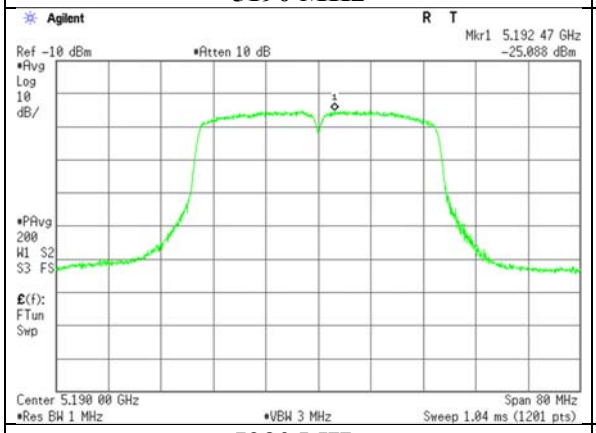


Maximum Power Spectral Density

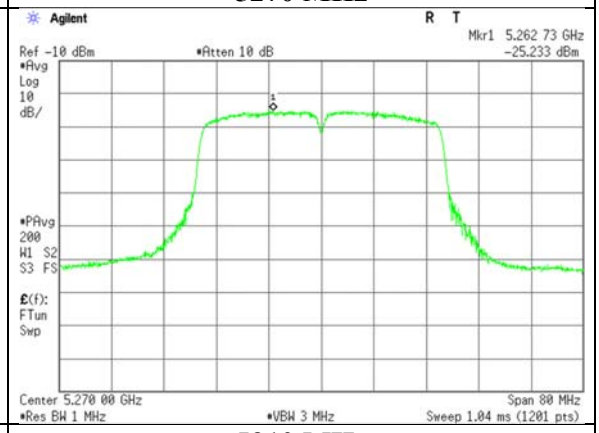
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-40	

11ac-40, Antenna 0

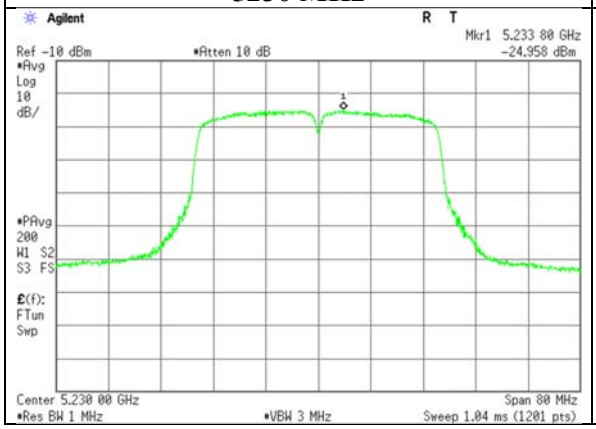
5190 MHz



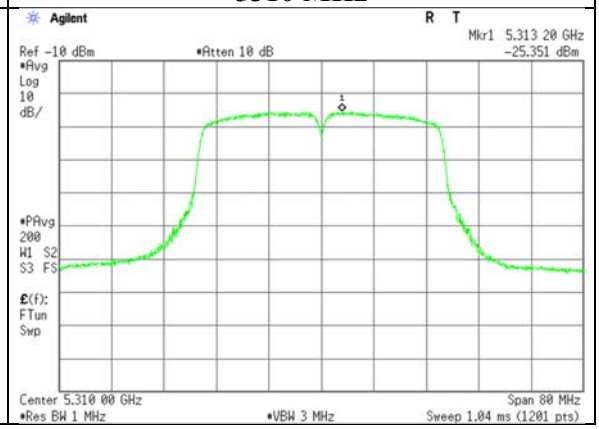
5270 MHz



5230 MHz



5310 MHz

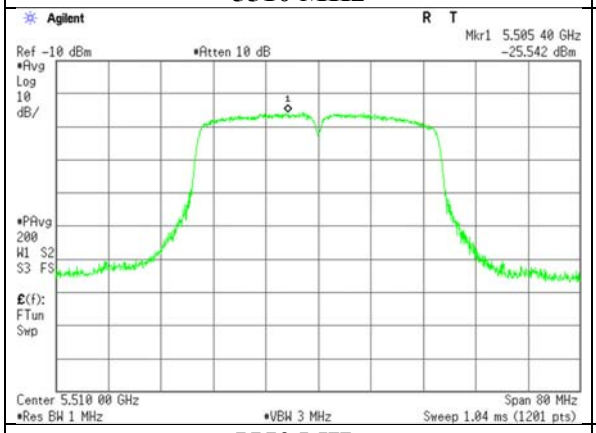


Maximum Power Spectral Density

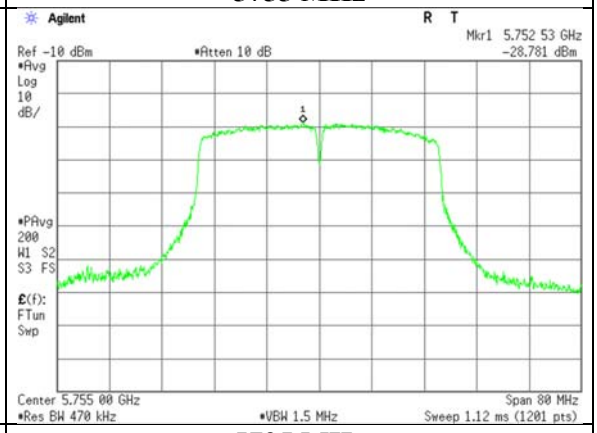
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-40	

11ac-40, Antenna 0

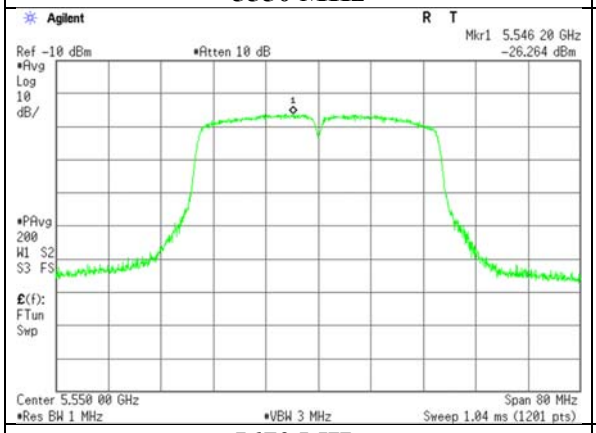
5510 MHz



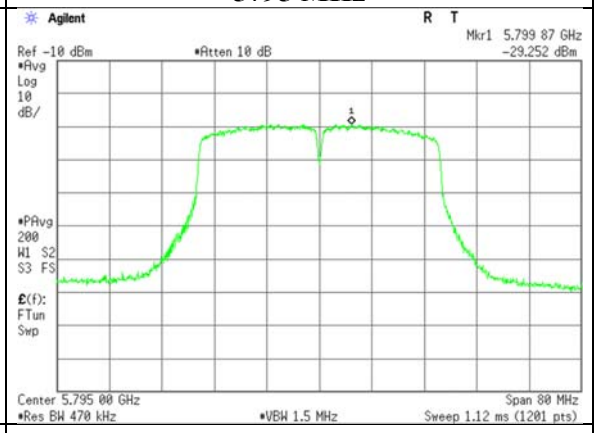
5755 MHz



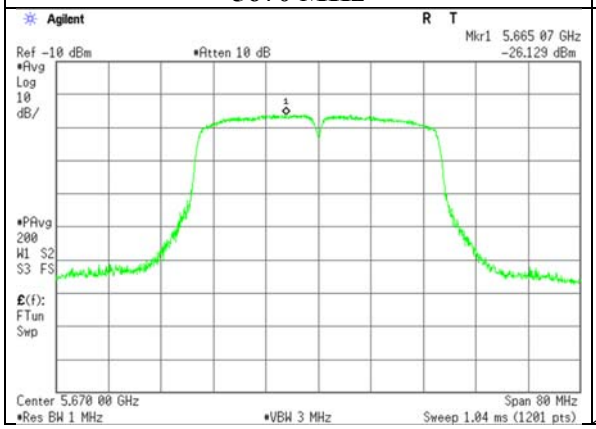
5550 MHz



5795 MHz



5670 MHz

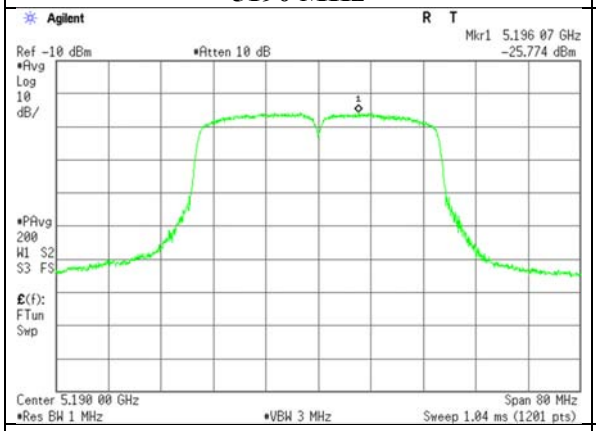


Maximum Power Spectral Density

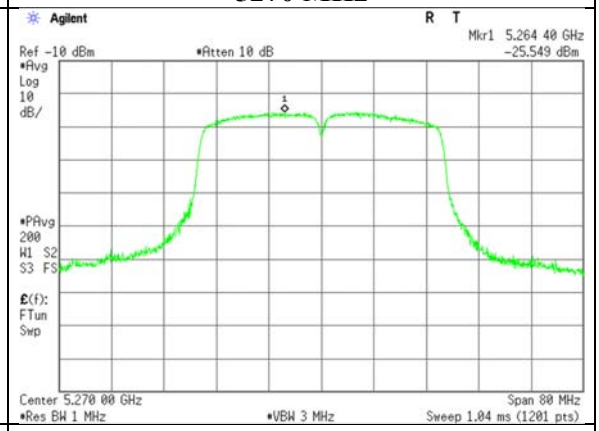
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-40	

11ac-40, Antenna 1

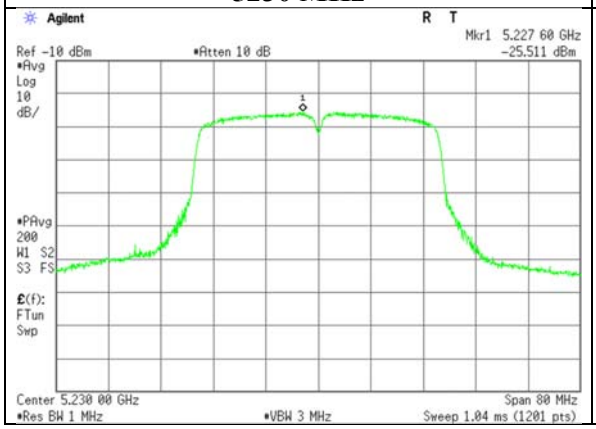
5190 MHz



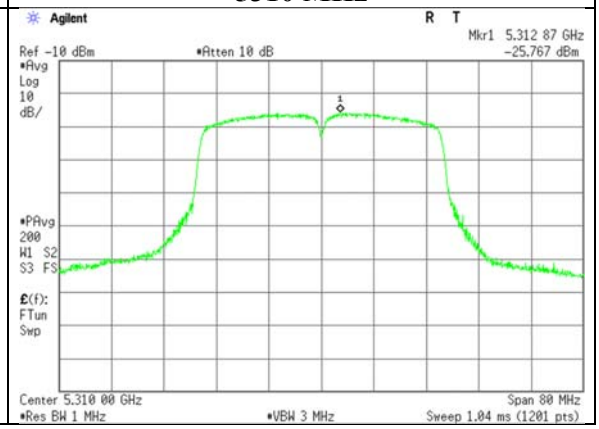
5270 MHz



5230 MHz



5310 MHz

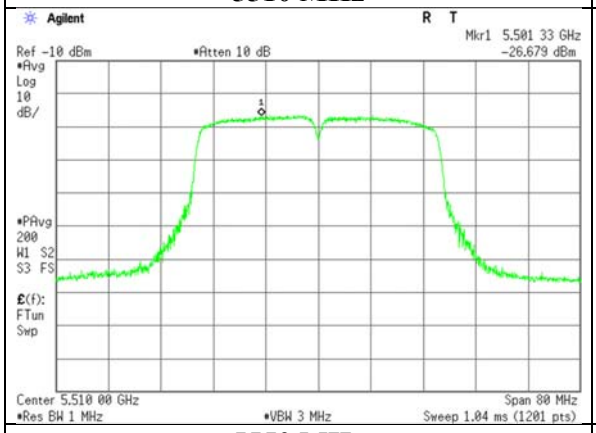


Maximum Power Spectral Density

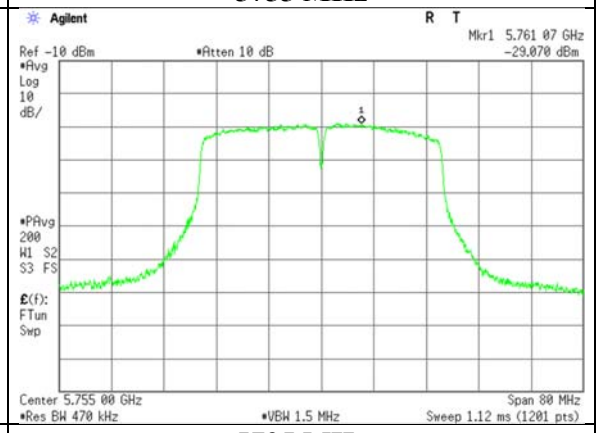
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-40	

11ac-40, Antenna 1

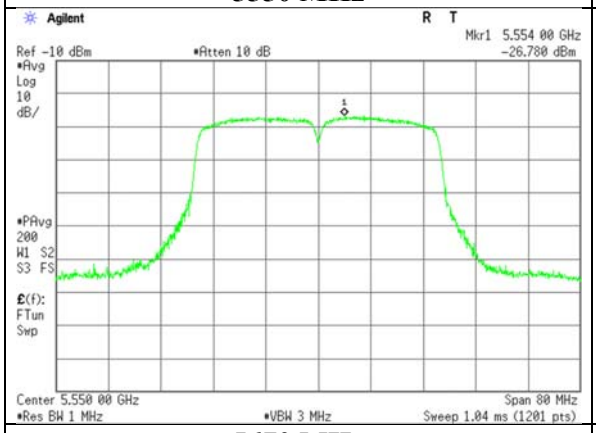
5510 MHz



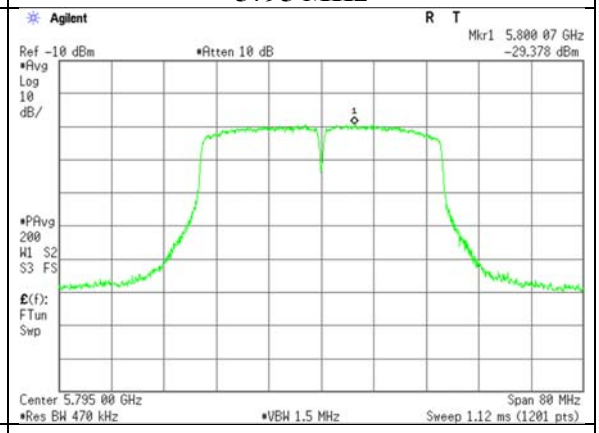
5755 MHz



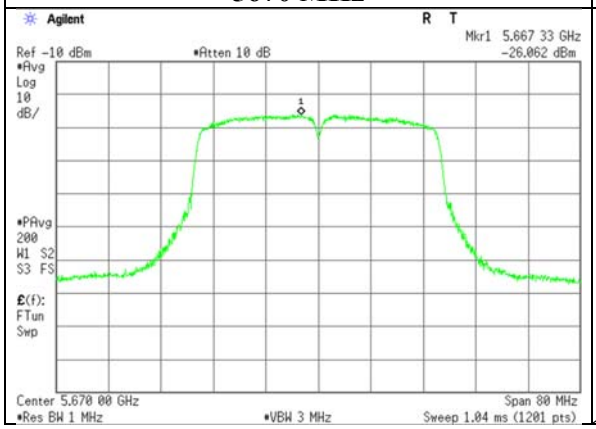
5550 MHz



5795 MHz



5670 MHz

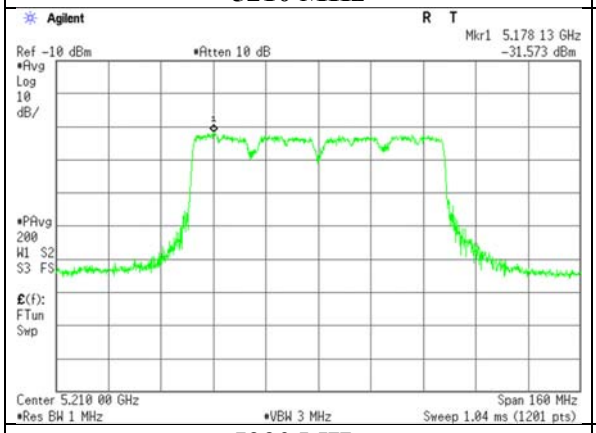


Maximum Power Spectral Density

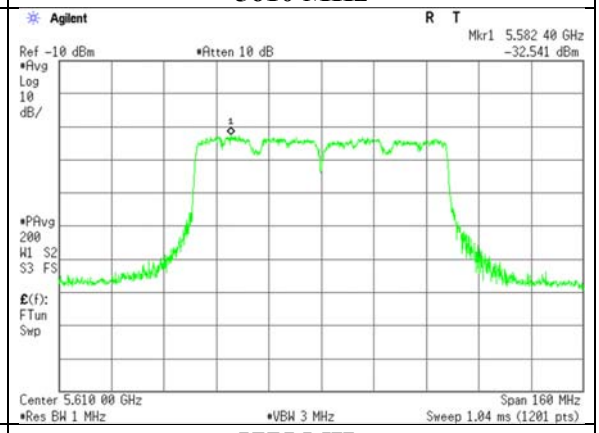
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-80	

11ac-80, Antenna 0

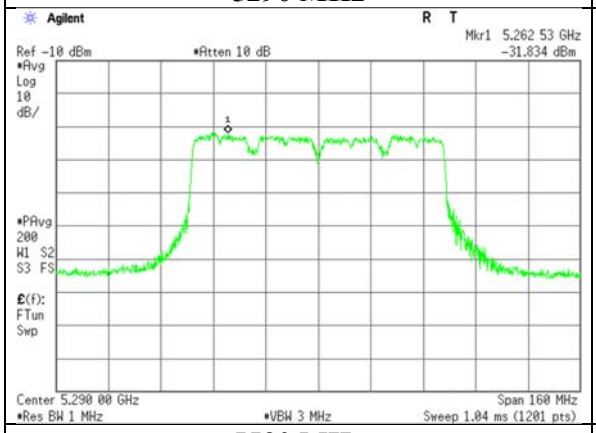
5210 MHz



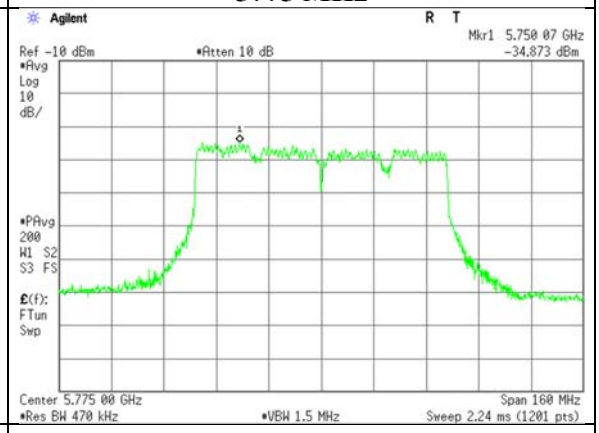
5610 MHz



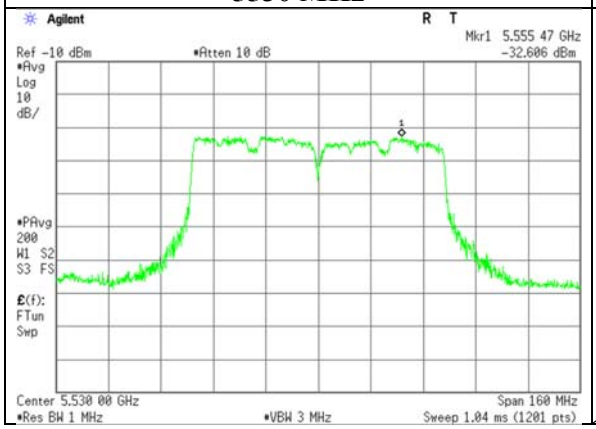
5290 MHz



5775 MHz



5530 MHz

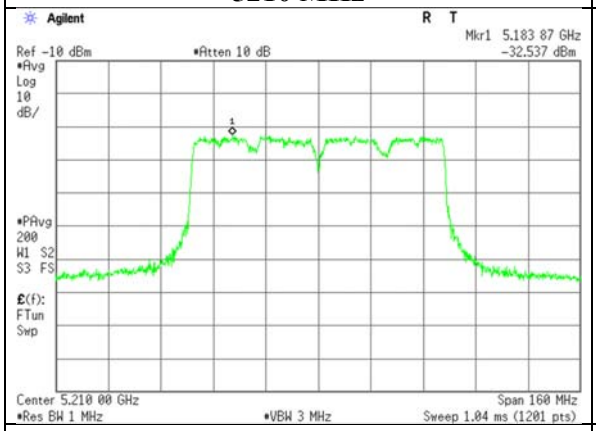


Maximum Power Spectral Density

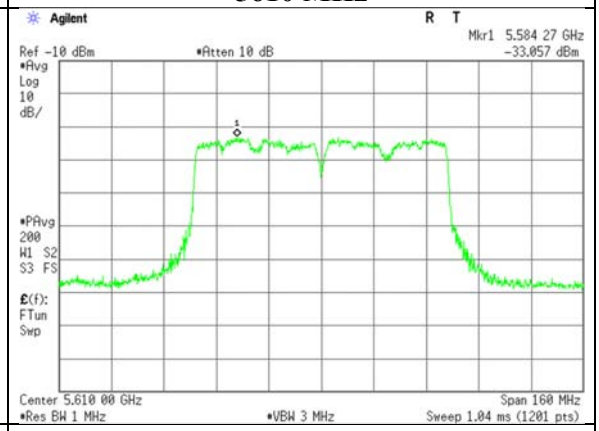
Report No.	12608632H	
Test place	Ise EMC Lab. No.4 Measurement Room	
Date	March 22, 2019	March 25, 2019
Temperature / Humidity	24 deg. C / 41 % RH	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka	Ryota Yamanaka
Mode	Tx 11ac-80	

11ac-80, Antenna 1

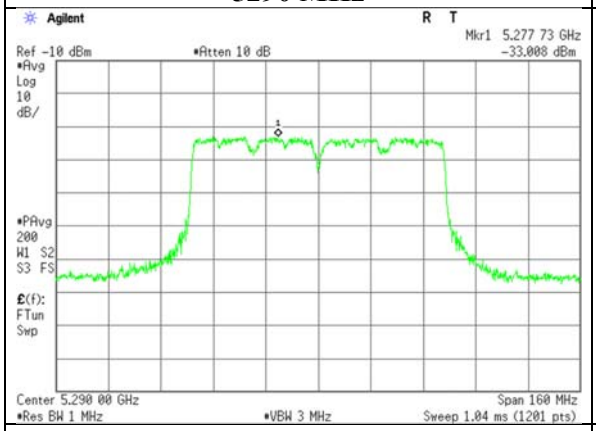
5210 MHz



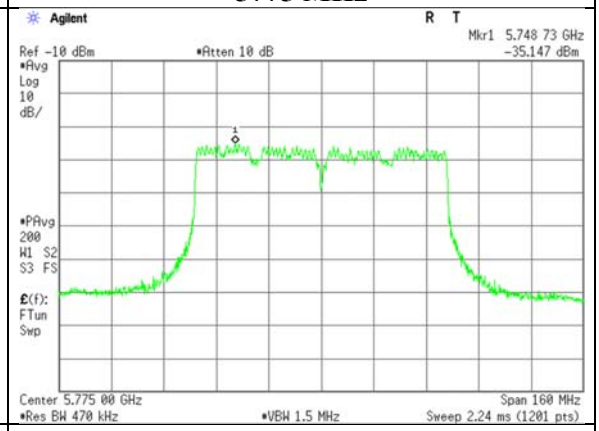
5610 MHz



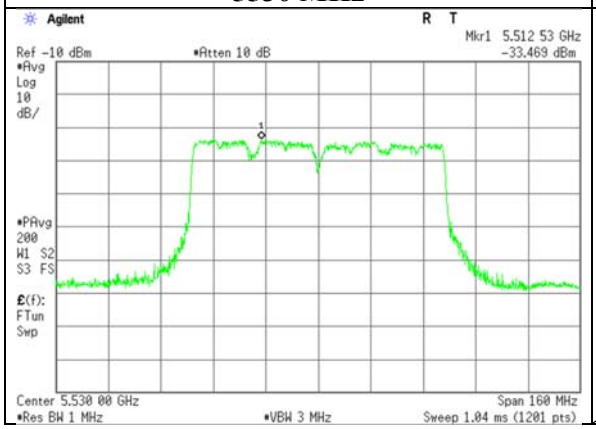
5290 MHz



5775 MHz



5530 MHz



Radiated Spurious Emission

Report No.	12608632H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.2	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019	April 4, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Takafumi Noguchi (10 GHz - 18 GHz)	Yuta Moriya (18 GHz - 40 GHz)	Takafumi Noguchi (30 MHz - 1 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.	120.005	QP	31.2	12.9	7.6	30.2	-	21.6	43.5	21.9	
Hori.	124.706	QP	32.0	13.3	7.6	30.1	-	22.8	43.5	20.7	
Hori.	129.412	QP	29.3	13.8	7.7	30.1	-	20.6	43.5	22.9	
Hori.	143.528	QP	36.7	14.5	7.8	30.0	-	29.0	43.5	14.5	
Hori.	148.233	QP	33.9	14.7	7.8	30.0	-	26.4	43.5	17.1	
Hori.	316.106	QP	32.9	14.1	9.0	29.3	-	26.7	46.0	19.3	
Hori.	5150.000	PK	45.5	31.9	5.3	31.8	-	50.9	73.9	23.0	
Hori.	10360.000	PK	42.8	39.0	-2.5	33.5	-	45.8	73.9	28.1	Floor noise
Hori.	15540.000	PK	43.3	37.8	-0.6	32.7	-	47.7	73.9	26.2	Floor noise
Hori.	20720.000	PK	45.4	39.9	-1.8	32.9	-	50.6	73.9	23.3	Floor noise
Hori.	25900.000	PK	46.1	40.3	-0.8	30.7	-	54.8	73.9	19.1	Floor noise
Hori.	5150.000	AV	35.6	31.9	5.3	31.8	2.0	43.0	53.9	10.9	*1)
Hori.	10360.000	AV	34.3	39.0	-2.5	33.5	-	37.3	53.9	16.6	Floor noise
Hori.	15540.000	AV	34.7	37.8	-0.6	32.7	-	39.1	53.9	14.8	Floor noise
Hori.	20720.000	AV	37.0	39.9	-1.8	32.9	-	42.2	53.9	11.7	Floor noise
Hori.	25900.000	AV	38.5	40.3	-0.8	30.7	-	47.3	53.9	6.6	Floor noise
Vert.	120.002	QP	34.4	12.9	7.6	30.2	-	24.8	43.5	18.7	
Vert.	124.704	QP	38.8	13.3	7.6	30.1	-	29.6	43.5	13.9	
Vert.	129.409	QP	37.0	13.8	7.7	30.1	-	28.3	43.5	15.2	
Vert.	143.528	QP	30.0	14.5	7.8	30.0	-	22.3	43.5	21.2	
Vert.	148.234	QP	37.2	14.7	7.8	30.0	-	29.7	43.5	13.8	
Vert.	294.712	QP	33.3	13.5	8.8	29.2	-	26.4	46.0	19.6	
Vert.	5150.000	PK	43.8	31.9	5.3	31.8	-	49.2	73.9	24.7	
Vert.	10360.000	PK	42.7	39.0	-2.5	33.5	-	45.7	73.9	28.2	Floor noise
Vert.	15540.000	PK	43.5	37.8	-0.6	32.7	-	47.9	73.9	26.0	Floor noise
Vert.	20720.000	PK	44.9	39.9	-1.8	32.9	-	50.1	73.9	23.8	Floor noise
Vert.	25900.000	PK	46.7	40.3	-0.8	30.7	-	55.4	73.9	18.5	Floor noise
Vert.	5150.000	AV	34.0	31.9	5.3	31.8	2.0	41.4	53.9	12.5	*1)
Vert.	10360.000	AV	34.2	39.0	-2.5	33.5	-	37.2	53.9	16.7	Floor noise
Vert.	15540.000	AV	34.8	37.8	-0.6	32.7	-	39.2	53.9	14.7	Floor noise
Vert.	20720.000	AV	36.2	39.9	-1.8	32.9	-	41.4	53.9	12.5	Floor noise
Vert.	25900.000	AV	38.1	40.3	-0.8	30.7	-	46.9	53.9	7.0	Floor noise

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

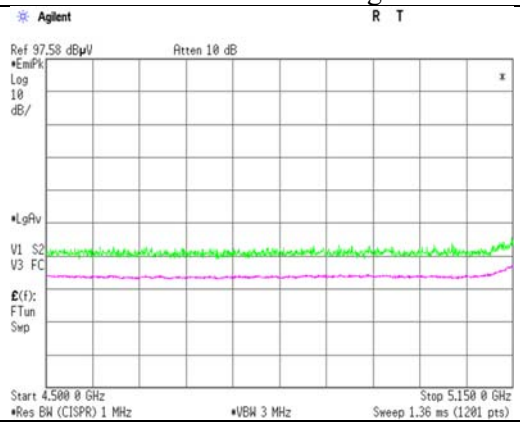
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

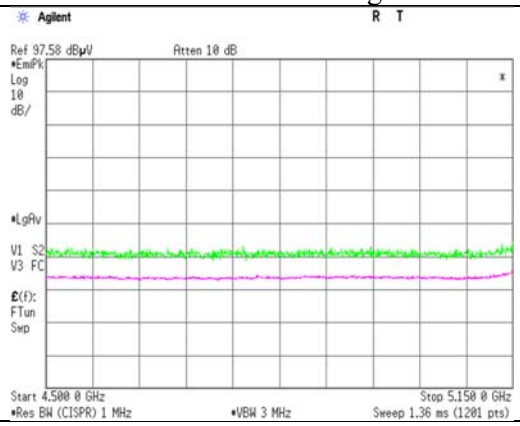
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 40 GHz)
Mode	Tx 11ac-20 5260 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	10520.000	PK	43.0	39.3	-2.5	33.6	-	46.2	73.9	27.7	Floor noise
Hori.	15780.000	PK	42.6	37.0	-0.7	32.8	-	46.1	73.9	27.8	Floor noise
Hori.	21040.000	PK	45.8	39.9	-1.7	32.9	-	51.1	73.9	22.8	Floor noise
Hori.	26300.000	PK	46.6	40.1	-0.7	30.6	-	55.4	73.9	18.5	Floor noise
Hori.	10520.000	AV	34.4	39.3	-2.5	33.6	-	37.6	53.9	16.3	Floor noise
Hori.	15780.000	AV	34.8	37.0	-0.7	32.8	-	38.3	53.9	15.6	Floor noise
Hori.	21040.000	AV	37.1	39.9	-1.7	32.9	-	42.3	53.9	11.6	Floor noise
Hori.	26300.000	AV	37.7	40.1	-0.7	30.6	-	46.5	53.9	7.4	Floor noise
Vert.	10520.000	PK	42.6	39.3	-2.5	33.6	-	45.8	73.9	28.1	Floor noise
Vert.	15780.000	PK	42.2	37.0	-0.7	32.8	-	45.7	73.9	28.2	Floor noise
Vert.	21040.000	PK	45.3	39.9	-1.7	32.9	-	50.6	73.9	23.3	Floor noise
Vert.	26300.000	PK	47.0	40.1	-0.7	30.6	-	55.8	73.9	18.1	Floor noise
Vert.	10520.000	AV	34.6	39.3	-2.5	33.6	-	37.8	53.9	16.1	Floor noise
Vert.	15780.000	AV	35.0	37.0	-0.7	32.8	-	38.5	53.9	15.4	Floor noise
Vert.	21040.000	AV	36.6	39.9	-1.7	32.9	-	41.9	53.9	12.0	Floor noise
Vert.	26300.000	AV	37.5	40.1	-0.7	30.6	-	46.3	53.9	7.6	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 40 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	46.0	31.4	5.4	31.8	-	50.9	73.9	23.0	
Hori.	10640.000	PK	42.2	39.5	-2.5	33.6	-	45.7	73.9	28.3	Floor noise
Hori.	15960.000	PK	43.2	36.8	-0.8	32.8	-	46.3	73.9	27.6	Floor noise
Hori.	21280.000	PK	45.1	39.9	-1.7	32.8	-	50.5	73.9	23.5	Floor noise
Hori.	5350.000	AV	33.9	31.4	5.4	31.8	2.0	40.8	53.9	13.1	*1)
Hori.	10640.000	AV	34.0	39.5	-2.5	33.6	-	37.5	53.9	16.5	Floor noise
Hori.	15960.000	AV	35.3	36.8	-0.8	32.8	-	38.4	53.9	15.5	Floor noise
Hori.	21280.000	AV	37.0	39.9	-1.7	32.8	-	42.4	53.9	11.6	Floor noise
Vert.	5350.000	PK	45.4	31.4	5.4	31.8	-	50.3	73.9	23.6	
Vert.	10640.000	PK	41.9	39.5	-2.5	33.6	-	45.4	73.9	28.6	Floor noise
Vert.	15960.000	PK	43.3	36.8	-0.8	32.8	-	46.4	73.9	27.5	Floor noise
Vert.	21280.000	PK	45.1	39.9	-1.7	32.8	-	50.4	73.9	23.5	Floor noise
Vert.	5350.000	AV	33.2	31.4	5.4	31.8	2.0	40.1	53.9	13.8	*1)
Vert.	10640.000	AV	33.7	39.5	-2.5	33.6	-	37.2	53.9	16.8	Floor noise
Vert.	15960.000	AV	35.4	36.8	-0.8	32.8	-	38.5	53.9	15.4	Floor noise
Vert.	21280.000	AV	37.2	39.9	-1.7	32.8	-	42.5	53.9	11.4	Floor noise

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

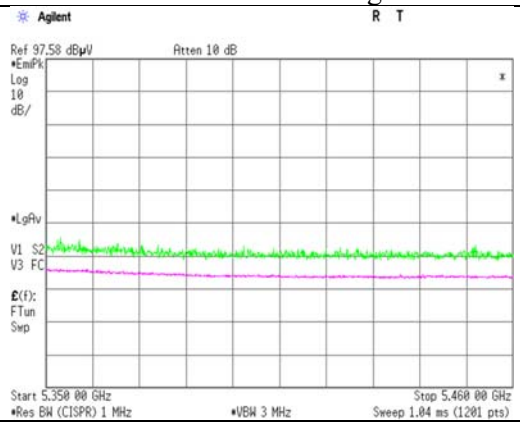
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

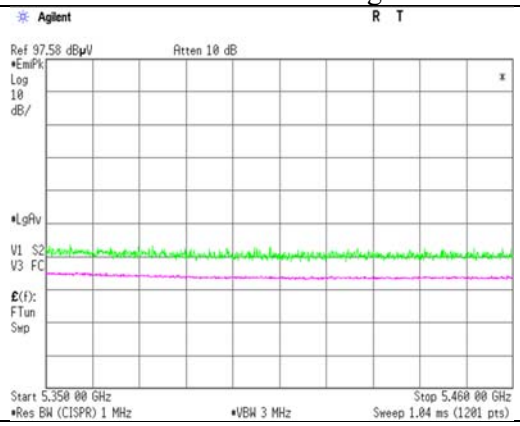
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 40 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	45.2	31.5	5.4	31.9	-	50.3	73.9	23.6	
Hori.	5470.000	PK	47.4	31.5	5.4	31.9	-	52.5	68.2	15.7	
Hori.	11000.000	PK	42.4	40.2	-2.5	33.6	-	46.5	73.9	27.4	Floor noise
Hori.	16500.000	PK	43.6	37.9	-0.7	32.7	-	48.1	73.9	25.8	Floor noise
Hori.	22000.000	PK	45.7	40.1	-1.6	32.6	-	51.6	73.9	22.3	Floor noise
Hori.	5460.000	AV	34.5	31.5	5.4	31.9	2.0	41.6	53.9	12.3	*1)
Hori.	11000.000	AV	33.6	40.2	-2.5	33.6	-	37.7	53.9	16.2	Floor noise
Hori.	16500.000	AV	35.7	37.9	-0.7	32.7	-	40.2	53.9	13.7	Floor noise
Hori.	22000.000	AV	37.2	40.1	-1.6	32.6	-	43.1	53.9	10.8	Floor noise
Vert.	5460.000	PK	43.2	31.5	5.4	31.9	-	48.3	73.9	25.6	
Vert.	5470.000	PK	45.5	31.5	5.4	31.9	-	50.6	68.2	17.6	
Vert.	11000.000	PK	41.9	40.2	-2.5	33.6	-	46.0	73.9	27.9	Floor noise
Vert.	16500.000	PK	43.7	37.9	-0.7	32.7	-	48.2	73.9	25.7	Floor noise
Vert.	22000.000	PK	45.4	40.1	-1.6	32.6	-	51.4	73.9	22.5	Floor noise
Vert.	5460.000	AV	33.5	31.5	5.4	31.9	2.0	40.6	53.9	13.3	*1)
Vert.	11000.000	AV	33.9	40.2	-2.5	33.6	-	38.0	53.9	15.9	Floor noise
Vert.	16500.000	AV	35.7	37.9	-0.7	32.7	-	40.2	53.9	13.7	Floor noise
Vert.	22000.000	AV	37.0	40.1	-1.6	32.6	-	42.9	53.9	11.0	Floor noise

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

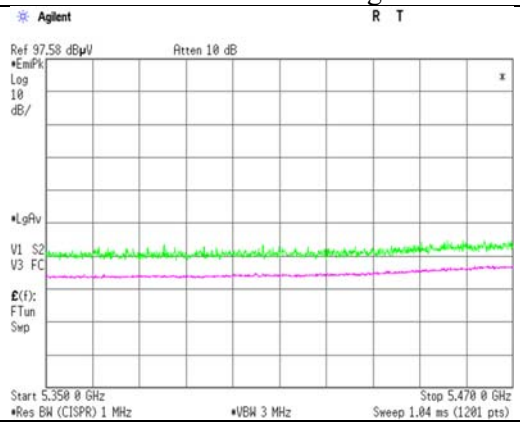
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

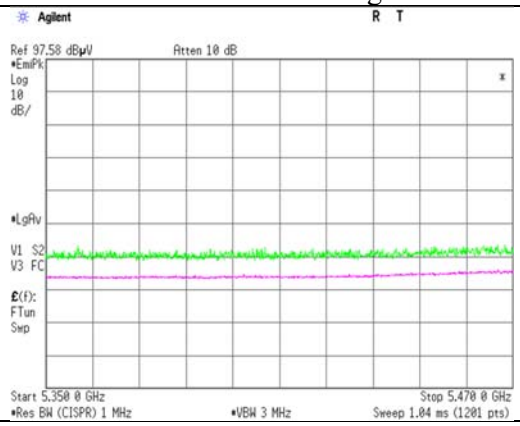
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 40 GHz)
Mode	Tx 11ac-20 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	42.2	39.8	-2.3	33.6	-	46.1	73.9	27.8	Floor noise
Hori.	16740.000	PK	43.8	39.0	-0.6	32.7	-	49.6	73.9	24.3	Floor noise
Hori.	22320.000	PK	45.0	40.4	-1.5	32.5	-	51.4	73.9	22.5	Floor noise
Hori.	11160.000	AV	33.3	39.8	-2.3	33.6	-	37.2	53.9	16.7	Floor noise
Hori.	16740.000	AV	35.2	39.0	-0.6	32.7	-	41.0	53.9	12.9	Floor noise
Hori.	22320.000	AV	36.9	40.4	-1.5	32.5	-	43.2	53.9	10.7	Floor noise
Vert.	11160.000	PK	42.0	39.8	-2.3	33.6	-	45.9	73.9	28.0	Floor noise
Vert.	16740.000	PK	43.4	39.0	-0.6	32.7	-	49.2	73.9	24.7	Floor noise
Vert.	22320.000	PK	45.4	40.4	-1.5	32.5	-	51.7	73.9	22.2	Floor noise
Vert.	11160.000	AV	33.3	39.8	-2.3	33.6	-	37.2	53.9	16.7	Floor noise
Vert.	16740.000	AV	35.4	39.0	-0.6	32.7	-	41.2	53.9	12.7	Floor noise
Vert.	22320.000	AV	36.8	40.4	-1.5	32.5	-	43.2	53.9	10.7	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 40 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	44.4	31.9	5.5	31.9	-	50.0	68.2	18.2	
Hori.	11400.000	PK	42.6	40.1	-2.1	33.6	-	47.0	73.9	26.9	Floor noise
Hori.	17100.000	PK	43.5	39.9	-0.5	32.6	-	50.2	73.9	23.7	Floor noise
Hori.	22800.000	PK	45.3	40.6	-1.4	32.4	-	52.1	73.9	21.8	Floor noise
Hori.	11400.000	AV	33.7	40.1	-2.1	33.6	-	38.1	53.9	15.8	Floor noise
Hori.	17100.000	AV	35.5	39.9	-0.5	32.6	-	42.2	53.9	11.7	Floor noise
Hori.	22800.000	AV	37.4	40.6	-1.4	32.4	-	44.2	53.9	9.7	Floor noise
Vert.	5725.000	PK	41.4	31.9	5.5	31.9	-	47.0	68.2	21.2	
Vert.	11400.000	PK	42.4	40.1	-2.1	33.6	-	46.8	73.9	27.1	Floor noise
Vert.	17100.000	PK	43.8	39.9	-0.5	32.6	-	50.5	73.9	23.4	Floor noise
Vert.	22800.000	PK	45.1	40.6	-1.4	32.4	-	51.9	73.9	22.0	Floor noise
Vert.	11400.000	AV	34.0	40.1	-2.1	33.6	-	38.4	53.9	15.5	Floor noise
Vert.	17100.000	AV	35.3	39.9	-0.5	32.6	-	42.0	53.9	11.9	Floor noise
Vert.	22800.000	AV	37.1	40.6	-1.4	32.4	-	43.9	53.9	10.0	Floor noise

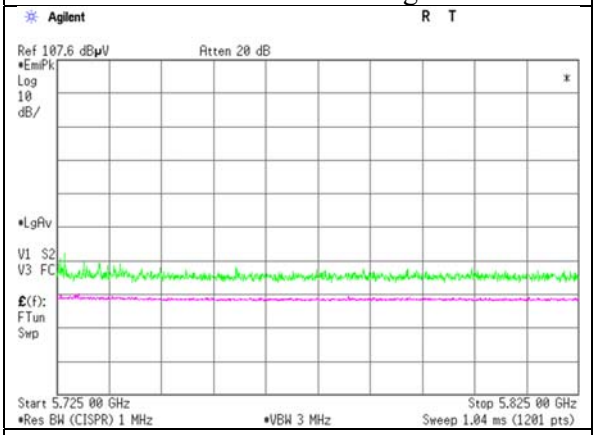
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

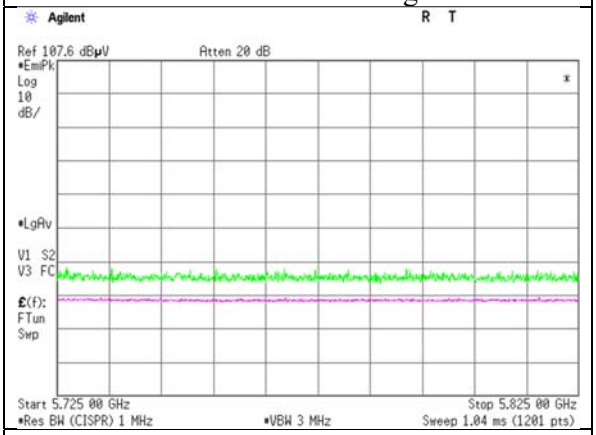
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 18 GHz)	(18 GHz - 40 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	41.9	31.6	5.5	31.9	-	47.1	68.2	21.1	
Hori.	5700.000	PK	43.5	31.8	5.5	31.9	-	48.9	105.2	56.3	
Hori.	5720.000	PK	48.3	31.9	5.5	31.9	-	53.8	110.8	57.0	
Hori.	5725.000	PK	51.5	31.9	5.5	31.9	-	57.1	122.2	65.1	
Hori.	11490.000	PK	42.4	39.9	-2.0	33.5	-	46.8	73.9	27.2	Floor noise
Hori.	17235.000	PK	43.9	40.3	-0.5	32.6	-	51.1	73.9	22.8	Floor noise
Hori.	22980.000	PK	45.1	40.7	-1.4	32.4	-	52.1	73.9	21.9	Floor noise
Hori.	11490.000	AV	33.8	39.9	-2.0	33.5	-	38.2	53.9	15.8	Floor noise
Hori.	17235.000	AV	35.5	40.3	-0.5	32.6	-	42.7	53.9	11.2	Floor noise
Hori.	22980.000	AV	36.8	40.7	-1.4	32.4	-	43.8	53.9	10.1	Floor noise
Vert.	5650.000	PK	41.7	31.6	5.5	31.9	-	46.9	68.2	21.3	
Vert.	5700.000	PK	43.3	31.8	5.5	31.9	-	48.7	105.2	56.5	
Vert.	5720.000	PK	47.6	31.9	5.5	31.9	-	53.1	110.8	57.7	
Vert.	5725.000	PK	49.5	31.9	5.5	31.9	-	55.1	122.2	67.1	
Vert.	11490.000	PK	41.8	39.9	-2.0	33.5	-	46.2	73.9	27.8	Floor noise
Vert.	17235.000	PK	44.2	40.3	-0.5	32.6	-	51.4	73.9	22.5	Floor noise
Vert.	22980.000	PK	45.1	40.7	-1.4	32.4	-	52.1	73.9	21.8	Floor noise
Vert.	11490.000	AV	33.6	39.9	-2.0	33.5	-	38.0	53.9	16.0	Floor noise
Vert.	17235.000	AV	35.7	40.3	-0.5	32.6	-	42.9	53.9	11.0	Floor noise
Vert.	22980.000	AV	36.8	40.7	-1.4	32.4	-	43.8	53.9	10.1	Floor noise

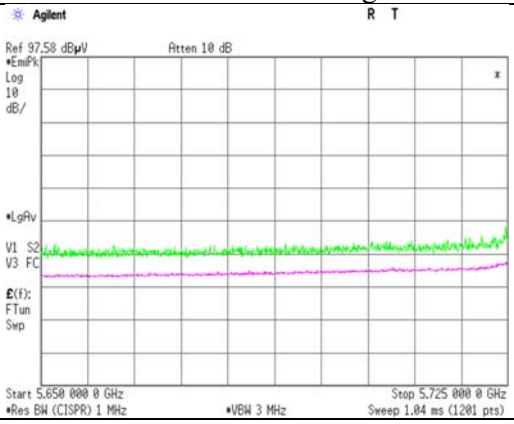
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

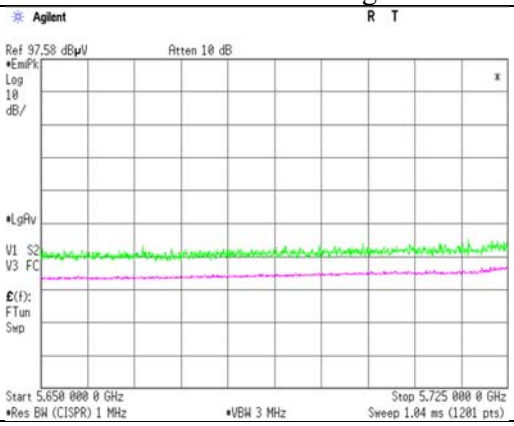
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 18 GHz)	(18 GHz - 40 GHz)
Mode	Tx 11ac-20 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	41.8	39.8	-1.9	33.5	-	46.1	73.9	27.8	Floor noise
Hori.	17355.000	PK	43.7	41.1	-0.5	32.6	-	51.7	73.9	22.2	Floor noise
Hori.	23140.000	PK	45.2	40.6	-1.3	32.3	-	52.1	73.9	21.8	Floor noise
Hori.	11570.000	AV	33.7	39.8	-1.9	33.5	-	38.0	53.9	15.9	Floor noise
Hori.	17355.000	AV	35.6	41.1	-0.5	32.6	-	43.6	53.9	10.3	Floor noise
Hori.	23140.000	AV	37.1	40.6	-1.3	32.3	-	44.0	53.9	9.9	Floor noise
Vert.	11570.000	PK	42.1	39.8	-1.9	33.5	-	46.4	73.9	27.5	Floor noise
Vert.	17355.000	PK	43.4	41.1	-0.5	32.6	-	51.4	73.9	22.5	Floor noise
Vert.	23140.000	PK	45.4	40.6	-1.3	32.3	-	52.3	73.9	21.6	Floor noise
Vert.	11570.000	AV	33.6	39.8	-1.9	33.5	-	37.9	53.9	16.0	Floor noise
Vert.	17355.000	AV	35.8	41.1	-0.5	32.6	-	43.8	53.9	10.1	Floor noise
Vert.	23140.000	AV	36.9	40.6	-1.3	32.3	-	43.8	53.9	10.1	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 18 GHz)	(18 GHz - 40 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	49.1	32.3	5.6	31.9	-	55.0	122.2	67.2	
Hori.	5855.000	PK	47.1	32.3	5.6	31.9	-	53.0	110.8	57.8	
Hori.	5875.000	PK	42.8	32.3	5.6	31.9	-	48.7	105.2	56.5	
Hori.	5925.000	PK	42.2	32.3	5.6	31.9	-	48.1	68.2	20.1	
Hori.	11650.000	PK	42.3	39.5	-1.9	33.5	-	46.4	73.9	27.5	Floor noise
Hori.	17475.000	PK	43.4	42.0	-0.5	32.6	-	52.3	73.9	21.6	Floor noise
Hori.	23300.000	PK	45.3	40.5	-1.3	32.3	-	52.2	73.9	21.7	Floor noise
Hori.	11650.000	AV	33.8	39.5	-1.9	33.5	-	37.9	53.9	16.0	Floor noise
Hori.	17475.000	AV	35.5	42.0	-0.5	32.6	-	44.4	53.9	9.5	Floor noise
Hori.	23300.000	AV	37.2	40.5	-1.3	32.3	-	44.1	53.9	9.8	Floor noise
Vert.	5850.000	PK	46.8	32.3	5.6	31.9	-	52.7	122.2	69.5	
Vert.	5855.000	PK	44.3	32.3	5.6	31.9	-	50.2	110.8	60.6	
Vert.	5875.000	PK	42.8	32.3	5.6	31.9	-	48.7	105.2	56.5	
Vert.	5925.000	PK	42.6	32.3	5.6	31.9	-	48.5	68.2	19.7	
Vert.	11650.000	PK	42.2	39.5	-1.9	33.5	-	46.3	73.9	27.6	Floor noise
Vert.	17475.000	PK	43.6	42.0	-0.5	32.6	-	52.5	73.9	21.4	Floor noise
Vert.	23300.000	PK	45.1	40.5	-1.3	32.3	-	51.9	73.9	22.0	Floor noise
Vert.	11650.000	AV	33.7	39.5	-1.9	33.5	-	37.8	53.9	16.1	Floor noise
Vert.	17475.000	AV	35.5	42.0	-0.5	32.6	-	44.4	53.9	9.5	Floor noise
Vert.	23300.000	AV	36.8	40.5	-1.3	32.3	-	43.7	53.9	10.2	Floor noise

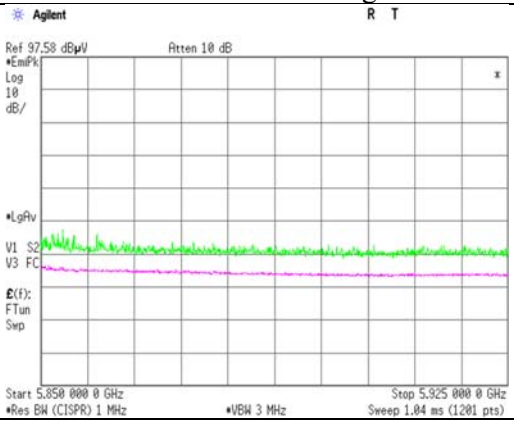
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

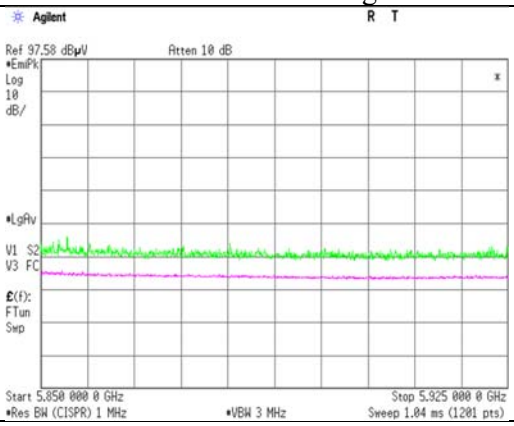
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(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	52.0	31.9	5.3	31.8	-	57.4	73.9	16.5	
Hori.	10380.000	PK	42.4	39.1	-2.5	33.5	-	45.4	73.9	28.5	Floor noise
Hori.	15570.000	PK	42.8	37.6	-0.6	32.8	-	47.0	73.9	26.9	Floor noise
Hori.	20760.000	PK	44.9	39.9	-1.8	32.9	-	50.1	73.9	23.8	Floor noise
Hori.	25950.000	PK	46.2	40.2	-0.8	30.7	-	55.0	73.9	18.9	Floor noise
Hori.	5150.000	AV	36.0	31.9	5.3	31.8	2.1	43.5	53.9	10.4	*1)
Hori.	10380.000	AV	33.9	39.1	-2.5	33.5	-	36.9	53.9	17.0	Floor noise
Hori.	15570.000	AV	34.5	37.6	-0.6	32.8	-	38.8	53.9	15.1	Floor noise
Hori.	20760.000	AV	36.5	39.9	-1.8	32.9	-	41.7	53.9	12.2	Floor noise
Hori.	25950.000	AV	37.9	40.2	-0.8	30.7	-	46.7	53.9	7.2	Floor noise
Vert.	5150.000	PK	49.7	31.9	5.3	31.8	-	55.1	73.9	18.8	
Vert.	10380.000	PK	42.9	39.1	-2.5	33.5	-	45.9	73.9	28.1	Floor noise
Vert.	15570.000	PK	43.0	37.6	-0.6	32.8	-	47.3	73.9	26.6	Floor noise
Vert.	20760.000	PK	45.0	39.9	-1.8	32.9	-	50.2	73.9	23.7	Floor noise
Vert.	25950.000	PK	46.6	40.2	-0.8	30.7	-	55.4	73.9	18.5	Floor noise
Vert.	5150.000	AV	34.1	31.9	5.3	31.8	2.1	41.6	53.9	12.3	*1)
Vert.	10380.000	AV	33.7	39.1	-2.5	33.5	-	36.7	53.9	17.2	Floor noise
Vert.	15570.000	AV	34.9	37.6	-0.6	32.8	-	39.1	53.9	14.8	Floor noise
Vert.	20760.000	AV	36.2	39.9	-1.8	32.9	-	41.5	53.9	12.4	Floor noise
Vert.	25950.000	AV	38.2	40.2	-0.8	30.7	-	46.9	53.9	7.0	Floor noise

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

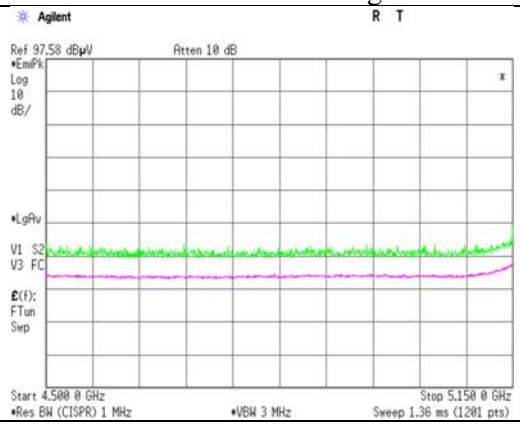
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

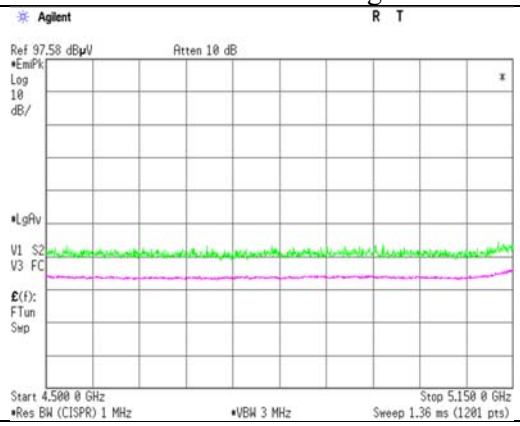
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(18 GHz - 40 GHz)
Mode	Tx 11ac-40 5270 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	10540.000	PK	42.6	39.4	-2.5	33.6	-	45.8	73.9	28.1	Floor noise
Hori.	15810.000	PK	43.0	36.9	-0.7	32.8	-	46.4	73.9	27.5	Floor noise
Hori.	21080.000	PK	45.3	39.9	-1.7	32.9	-	50.6	73.9	23.3	Floor noise
Hori.	26350.000	PK	46.3	40.2	-0.7	30.6	-	55.2	73.9	18.7	Floor noise
Hori.	10540.000	AV	34.4	39.4	-2.5	33.6	-	37.7	53.9	16.2	Floor noise
Hori.	15810.000	AV	34.8	36.9	-0.7	32.8	-	38.2	53.9	15.7	Floor noise
Hori.	21080.000	AV	37.1	39.9	-1.7	32.9	-	42.4	53.9	11.5	Floor noise
Hori.	26350.000	AV	37.8	40.2	-0.7	30.6	-	46.7	53.9	7.2	Floor noise
Vert.	10540.000	PK	42.5	39.4	-2.5	33.6	-	45.8	73.9	28.1	Floor noise
Vert.	15810.000	PK	42.9	36.9	-0.7	32.8	-	46.3	73.9	27.6	Floor noise
Vert.	21080.000	PK	45.0	39.9	-1.7	32.9	-	50.3	73.9	23.6	Floor noise
Vert.	26350.000	PK	46.2	40.2	-0.7	30.6	-	55.1	73.9	18.8	Floor noise
Vert.	10540.000	AV	34.5	39.4	-2.5	33.6	-	37.7	53.9	16.2	Floor noise
Vert.	15810.000	AV	34.8	36.9	-0.7	32.8	-	38.2	53.9	15.7	Floor noise
Vert.	21080.000	AV	36.9	39.9	-1.7	32.9	-	42.2	53.9	11.8	Floor noise
Vert.	26350.000	AV	37.3	40.2	-0.7	30.6	-	46.2	53.9	7.7	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(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	50.7	31.4	5.4	31.8	-	55.6	73.9	18.3	
Hori.	10620.000	PK	42.1	39.5	-2.5	33.6	-	45.6	73.9	28.4	Floor noise
Hori.	15930.000	PK	43.1	36.8	-0.8	32.8	-	46.3	73.9	27.6	Floor noise
Hori.	21240.000	PK	45.4	39.9	-1.7	32.9	-	50.7	73.9	23.2	Floor noise
Hori.	5350.000	AV	35.3	31.4	5.4	31.8	2.1	42.3	53.9	11.6	*1)
Hori.	10620.000	AV	33.8	39.5	-2.5	33.6	-	37.2	53.9	16.7	Floor noise
Hori.	15930.000	AV	34.9	36.8	-0.8	32.8	-	38.1	53.9	15.8	Floor noise
Hori.	21240.000	AV	37.6	39.9	-1.7	32.9	-	42.9	53.9	11.0	Floor noise
Vert.	5350.000	PK	51.3	31.4	5.4	31.8	-	56.2	73.9	17.7	
Vert.	10620.000	PK	42.1	39.5	-2.5	33.6	-	45.5	73.9	28.4	Floor noise
Vert.	15930.000	PK	43.0	36.8	-0.8	32.8	-	46.2	73.9	27.7	Floor noise
Vert.	21240.000	PK	45.1	39.9	-1.7	32.9	-	50.4	73.9	23.5	Floor noise
Vert.	5350.000	AV	36.0	31.4	5.4	31.8	2.1	43.0	53.9	10.9	*1)
Vert.	10620.000	AV	33.9	39.5	-2.5	33.6	-	37.3	53.9	16.6	Floor noise
Vert.	15930.000	AV	35.0	36.8	-0.8	32.8	-	38.2	53.9	15.7	Floor noise
Vert.	21240.000	AV	37.2	39.9	-1.7	32.9	-	42.5	53.9	11.4	Floor noise

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

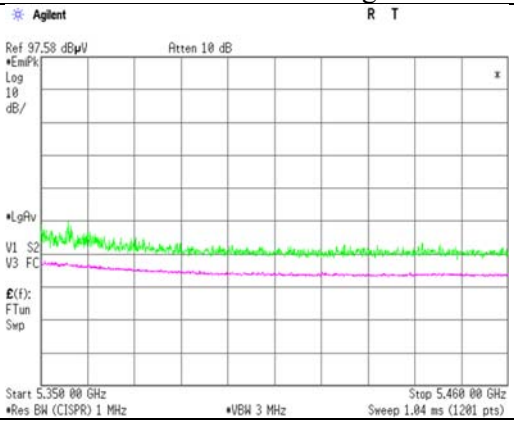
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

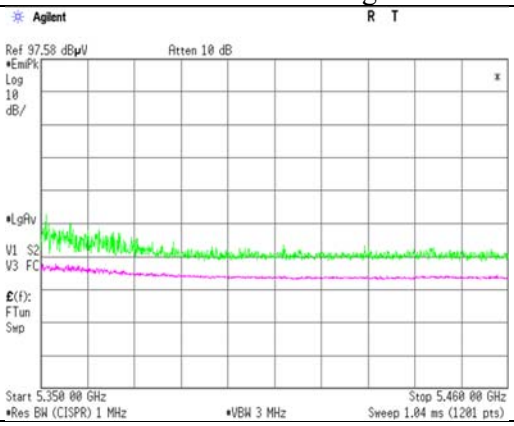
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	44.3	31.5	5.4	31.9	-	49.5	73.9	24.5	
Hori.	5470.000	PK	48.1	31.5	5.4	31.9	-	53.2	68.2	15.0	
Hori.	11020.000	PK	43.0	40.1	-2.4	33.6	-	47.1	73.9	26.9	Floor noise
Hori.	16530.000	PK	44.3	38.0	-0.7	32.7	-	48.9	73.9	25.0	Floor noise
Hori.	22040.000	PK	46.2	40.2	-1.6	32.6	-	52.3	73.9	21.7	Floor noise
Hori.	5460.000	AV	32.1	31.5	5.4	31.9	2.1	39.3	53.9	14.6	*1)
Hori.	11020.000	AV	33.8	40.1	-2.4	33.6	-	37.8	53.9	16.1	Floor noise
Hori.	16530.000	AV	35.8	38.0	-0.7	32.7	-	40.4	53.9	13.5	Floor noise
Hori.	22040.000	AV	37.5	40.2	-1.6	32.6	-	43.5	53.9	10.4	Floor noise
Vert.	5460.000	PK	42.3	31.5	5.4	31.9	-	47.4	73.9	26.5	
Vert.	5470.000	PK	45.4	31.5	5.4	31.9	-	50.5	68.2	17.7	
Vert.	11020.000	PK	42.8	40.1	-2.4	33.6	-	46.9	73.9	27.0	Floor noise
Vert.	16530.000	PK	44.4	38.0	-0.7	32.7	-	49.1	73.9	24.9	Floor noise
Vert.	22040.000	PK	45.9	40.2	-1.6	32.6	-	52.0	73.9	22.0	Floor noise
Vert.	5460.000	AV	31.1	31.5	5.4	31.9	2.1	38.3	53.9	15.6	*1)
Vert.	11020.000	AV	33.8	40.1	-2.4	33.6	-	37.9	53.9	16.0	Floor noise
Vert.	16530.000	AV	35.6	38.0	-0.7	32.7	-	40.2	53.9	13.7	Floor noise
Vert.	22040.000	AV	37.0	40.2	-1.6	32.6	-	43.0	53.9	10.9	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

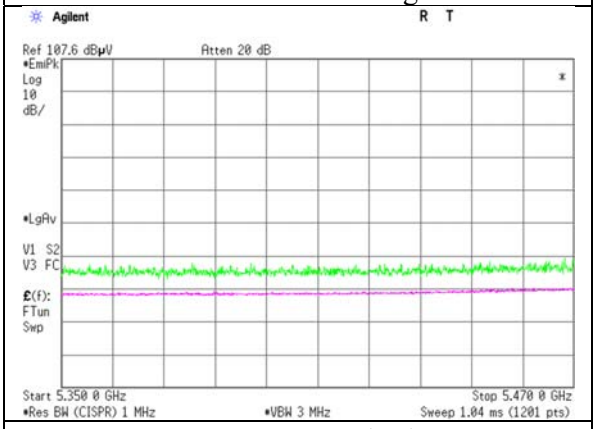
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11ac-40 5510 MHz

Horizontal

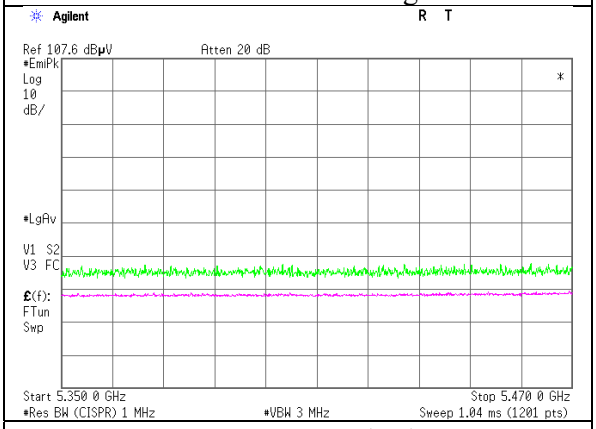
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	42.1	40.0	-2.4	33.6	-	46.1	73.9	27.8	Floor noise
Hori.	16650.000	PK	43.7	38.5	-0.6	32.7	-	48.9	73.9	25.0	Floor noise
Hori.	22200.000	PK	46.1	40.3	-1.5	32.6	-	52.3	73.9	21.6	Floor noise
Hori.	11100.000	AV	33.8	40.0	-2.4	33.6	-	37.7	53.9	16.2	Floor noise
Hori.	16650.000	AV	35.3	38.5	-0.6	32.7	-	40.4	53.9	13.5	Floor noise
Hori.	22200.000	AV	37.2	40.3	-1.5	32.6	-	43.5	53.9	10.4	Floor noise
Vert.	11100.000	PK	42.2	40.0	-2.4	33.6	-	46.2	73.9	27.8	Floor noise
Vert.	16650.000	PK	44.1	38.5	-0.6	32.7	-	49.2	73.9	24.7	Floor noise
Vert.	22200.000	PK	45.3	40.3	-1.5	32.6	-	51.6	73.9	22.3	Floor noise
Vert.	11100.000	AV	33.6	40.0	-2.4	33.6	-	37.6	53.9	16.3	Floor noise
Vert.	16650.000	AV	35.2	38.5	-0.6	32.7	-	40.3	53.9	13.6	Floor noise
Vert.	22200.000	AV	37.3	40.3	-1.5	32.6	-	43.5	53.9	10.4	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 (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	42.5	31.9	5.5	31.9	-	48.0	68.2	20.2	
Hori.	11340.000	PK	42.3	40.0	-2.1	33.6	-	46.5	73.9	27.4	Floor noise
Hori.	17010.000	PK	43.5	39.6	-0.6	32.6	-	50.0	73.9	23.9	Floor noise
Hori.	22680.000	PK	45.9	40.6	-1.4	32.4	-	52.6	73.9	21.3	Floor noise
Hori.	11340.000	AV	34.2	40.0	-2.1	33.6	-	38.5	53.9	15.4	Floor noise
Hori.	17010.000	AV	35.5	39.6	-0.6	32.6	-	42.0	53.9	11.9	Floor noise
Hori.	22680.000	AV	36.9	40.6	-1.4	32.4	-	43.5	53.9	10.4	Floor noise
Vert.	5725.000	PK	42.1	31.9	5.5	31.9	-	47.7	68.2	20.5	
Vert.	11340.000	PK	42.2	40.0	-2.1	33.6	-	46.4	73.9	27.5	Floor noise
Vert.	17010.000	PK	43.4	39.6	-0.6	32.6	-	49.9	73.9	24.0	Floor noise
Vert.	22680.000	PK	45.4	40.6	-1.4	32.4	-	52.1	73.9	21.8	Floor noise
Vert.	11340.000	AV	34.3	40.0	-2.1	33.6	-	38.5	53.9	15.4	Floor noise
Vert.	17010.000	AV	35.3	39.6	-0.6	32.6	-	41.8	53.9	12.1	Floor noise
Vert.	22680.000	AV	36.8	40.6	-1.4	32.4	-	43.5	53.9	10.4	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).

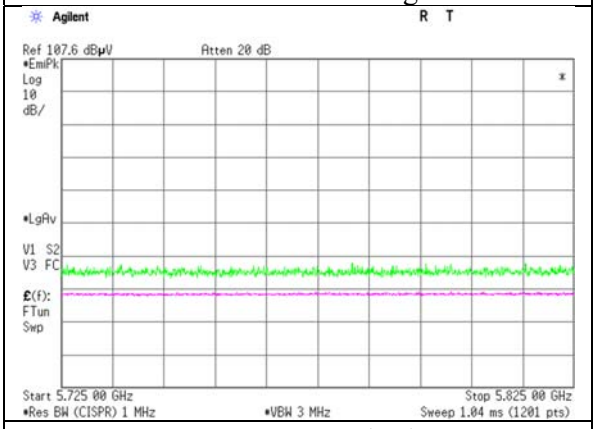
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11ac-40 5670 MHz

Horizontal

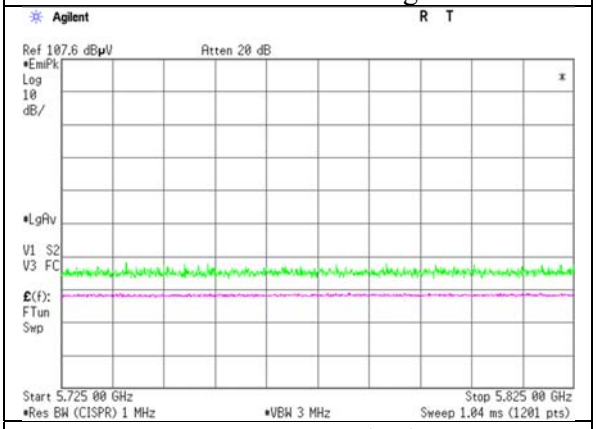
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	41.7	31.6	5.5	31.9	-	46.9	68.2	21.3	
Hori.	5700.000	PK	44.3	31.8	5.5	31.9	-	49.7	105.2	55.5	
Hori.	5720.000	PK	49.6	31.9	5.5	31.9	-	55.1	110.8	55.7	
Hori.	5725.000	PK	49.7	31.9	5.5	31.9	-	55.3	122.2	66.9	
Hori.	11510.000	PK	41.9	39.9	-2.0	33.5	-	46.3	73.9	27.6	Floor noise
Hori.	17265.000	PK	43.9	40.5	-0.5	32.6	-	51.3	73.9	22.6	Floor noise
Hori.	23020.000	PK	45.2	40.7	-1.4	32.4	-	52.2	73.9	21.7	Floor noise
Hori.	11510.000	AV	33.3	39.9	-2.0	33.5	-	37.6	53.9	16.3	Floor noise
Hori.	17265.000	AV	35.4	40.5	-0.5	32.6	-	42.8	53.9	11.1	Floor noise
Hori.	23020.000	AV	37.3	40.7	-1.4	32.4	-	44.3	53.9	9.7	Floor noise
Vert.	5650.000	PK	41.7	31.6	5.5	31.9	-	46.9	68.2	21.3	
Vert.	5700.000	PK	43.8	31.8	5.5	31.9	-	49.2	105.2	56.0	
Vert.	5720.000	PK	49.4	31.9	5.5	31.9	-	54.9	110.8	55.9	
Vert.	5725.000	PK	49.4	31.9	5.5	31.9	-	55.0	122.2	67.2	
Vert.	11510.000	PK	42.2	39.9	-2.0	33.5	-	46.5	73.9	27.4	Floor noise
Vert.	17265.000	PK	43.4	40.5	-0.5	32.6	-	50.8	73.9	23.1	Floor noise
Vert.	23020.000	PK	45.6	40.7	-1.4	32.4	-	52.6	73.9	21.4	Floor noise
Vert.	11510.000	AV	33.2	39.9	-2.0	33.5	-	37.6	53.9	16.4	Floor noise
Vert.	17265.000	AV	35.4	40.5	-0.5	32.6	-	42.8	53.9	11.1	Floor noise
Vert.	23020.000	AV	37.0	40.7	-1.4	32.4	-	44.0	53.9	9.9	Floor noise

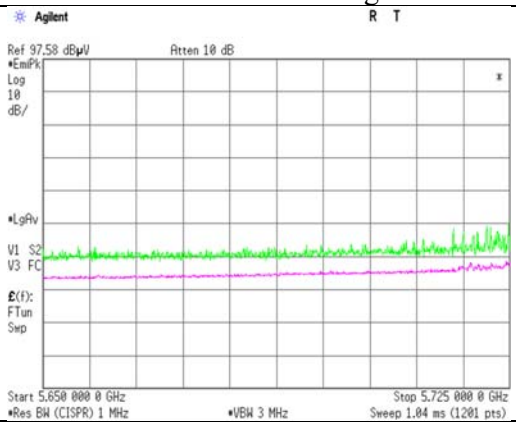
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

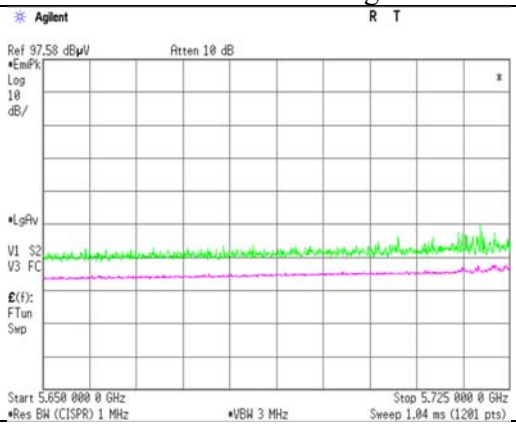
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	44.8	32.3	5.6	31.9	-	50.7	122.2	71.5	
Hori.	5855.000	PK	44.0	32.3	5.6	31.9	-	49.9	110.8	60.9	
Hori.	5875.000	PK	42.3	32.3	5.6	31.9	-	48.2	105.2	57.0	
Hori.	5925.000	PK	42.1	32.3	5.6	31.9	-	48.0	68.2	20.2	
Hori.	11590.000	PK	42.6	39.7	-1.9	33.5	-	46.9	73.9	27.0	Floor noise
Hori.	17385.000	PK	43.9	41.3	-0.5	32.6	-	52.1	73.9	21.8	Floor noise
Hori.	23180.000	PK	44.8	40.6	-1.3	32.3	-	51.8	73.9	22.1	Floor noise
Hori.	11590.000	AV	33.7	39.7	-1.9	33.5	-	38.0	53.9	15.9	Floor noise
Hori.	17385.000	AV	35.8	41.3	-0.5	32.6	-	44.0	53.9	9.9	Floor noise
Hori.	23180.000	AV	36.9	40.6	-1.3	32.3	-	43.8	53.9	10.1	Floor noise
Vert.	5850.000	PK	42.6	32.3	5.6	31.9	-	48.5	122.2	73.7	
Vert.	5855.000	PK	42.5	32.3	5.6	31.9	-	48.4	110.8	62.4	
Vert.	5875.000	PK	42.3	32.3	5.6	31.9	-	48.2	105.2	57.0	
Vert.	5925.000	PK	42.1	32.3	5.6	31.9	-	48.0	68.2	20.2	
Vert.	11590.000	PK	42.5	39.7	-1.9	33.5	-	46.7	73.9	27.2	Floor noise
Vert.	17385.000	PK	43.9	41.3	-0.5	32.6	-	52.1	73.9	21.8	Floor noise
Vert.	23180.000	PK	45.0	40.6	-1.3	32.3	-	52.0	73.9	22.0	Floor noise
Vert.	11590.000	AV	33.7	39.7	-1.9	33.5	-	38.0	53.9	15.9	Floor noise
Vert.	17385.000	AV	35.8	41.3	-0.5	32.6	-	43.9	53.9	10.0	Floor noise
Vert.	23180.000	AV	36.7	40.6	-1.3	32.3	-	43.6	53.9	10.3	Floor noise

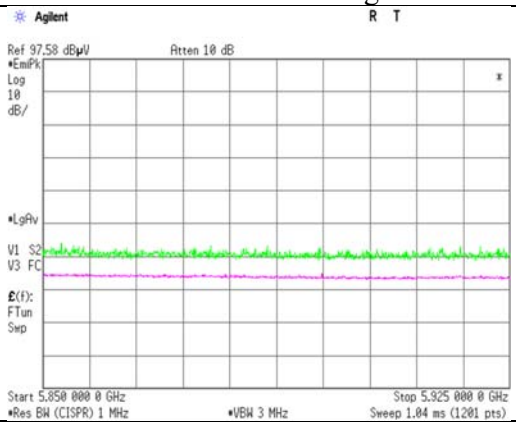
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

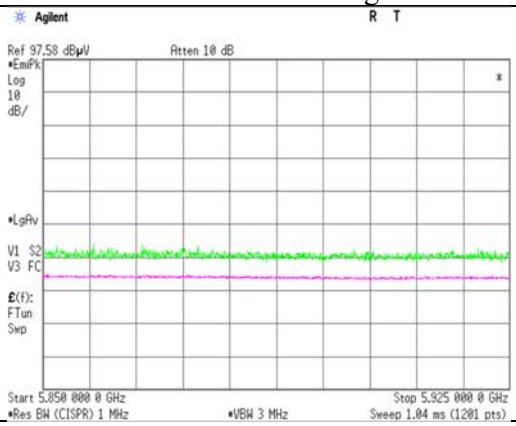
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	52.0	31.9	5.3	31.8	-	57.4	73.9	16.5	
Hori.	10420.000	PK	41.4	39.1	-2.5	33.5	-	44.4	73.9	29.5	Floor noise
Hori.	15630.000	PK	43.1	37.4	-0.7	32.8	-	47.1	73.9	26.8	Floor noise
Hori.	20840.000	PK	44.8	39.9	-1.8	32.9	-	50.1	73.9	23.8	Floor noise
Hori.	26050.000	PK	47.0	40.2	-0.8	30.6	-	55.8	73.9	18.1	Floor noise
Hori.	5150.000	AV	36.3	31.9	5.3	31.8	4.9	46.6	53.9	7.3	*1)
Hori.	10420.000	AV	33.6	39.1	-2.5	33.5	-	36.6	53.9	17.3	Floor noise
Hori.	15630.000	AV	34.9	37.4	-0.7	32.8	-	38.9	53.9	15.0	Floor noise
Hori.	20840.000	AV	36.7	39.9	-1.8	32.9	-	41.9	53.9	12.0	Floor noise
Hori.	26050.000	AV	38.1	40.2	-0.8	30.6	-	46.9	53.9	7.0	Floor noise
Vert.	5150.000	PK	49.7	31.9	5.3	31.8	-	55.1	73.9	18.8	
Vert.	10420.000	PK	41.8	39.1	-2.5	33.5	-	44.8	73.9	29.1	Floor noise
Vert.	15630.000	PK	43.3	37.4	-0.7	32.8	-	47.4	73.9	26.6	Floor noise
Vert.	20840.000	PK	44.7	39.9	-1.8	32.9	-	50.0	73.9	23.9	Floor noise
Vert.	26050.000	PK	46.6	40.2	-0.8	30.6	-	55.4	73.9	18.5	Floor noise
Vert.	5150.000	AV	34.2	31.9	5.3	31.8	4.9	44.5	53.9	9.4	*1)
Vert.	10420.000	AV	33.4	39.1	-2.5	33.5	-	36.4	53.9	17.5	Floor noise
Vert.	15630.000	AV	35.1	37.4	-0.7	32.8	-	39.1	53.9	14.8	Floor noise
Vert.	20840.000	AV	36.3	39.9	-1.8	32.9	-	41.6	53.9	12.3	Floor noise
Vert.	26050.000	AV	37.9	40.2	-0.8	30.6	-	46.7	53.9	7.2	Floor noise

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

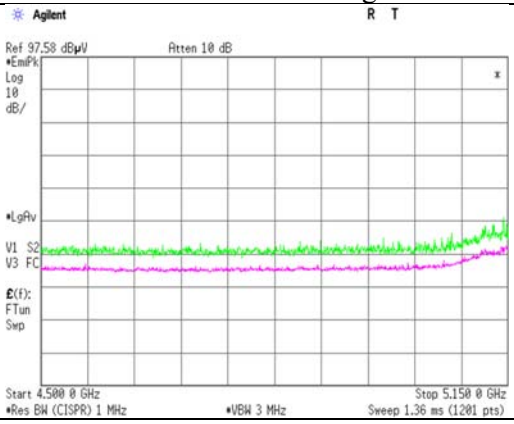
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

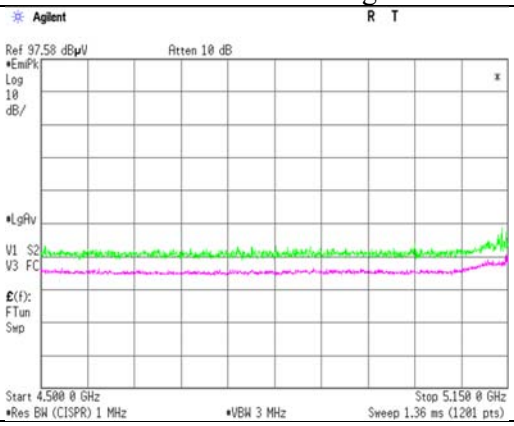
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	51.1	31.4	5.4	31.8	-	56.0	73.9	17.9	
Hori.	10580.000	PK	42.1	39.4	-2.5	33.6	-	45.5	73.9	28.4	Floor noise
Hori.	15870.000	PK	44.7	36.9	-0.7	32.8	-	48.0	73.9	25.9	Floor noise
Hori.	21160.000	PK	45.9	39.9	-1.7	32.9	-	51.2	73.9	22.7	Floor noise
Hori.	26450.000	PK	46.4	40.2	-0.6	30.6	-	55.4	73.9	18.5	Floor noise
Hori.	5350.000	AV	35.6	31.4	5.4	31.8	4.9	45.4	53.9	8.5	*1)
Hori.	10580.000	AV	34.0	39.4	-2.5	33.6	-	37.4	53.9	16.5	Floor noise
Hori.	15870.000	AV	34.5	36.9	-0.7	32.8	-	37.8	53.9	16.1	Floor noise
Hori.	21160.000	AV	37.7	39.9	-1.7	32.9	-	43.0	53.9	10.9	Floor noise
Hori.	26450.000	AV	37.8	40.2	-0.6	30.6	-	46.8	53.9	7.1	Floor noise
Vert.	5350.000	PK	49.4	31.4	5.4	31.8	-	54.3	73.9	19.6	
Vert.	10580.000	PK	42.0	39.4	-2.5	33.6	-	45.3	73.9	28.6	Floor noise
Vert.	15870.000	PK	44.2	36.9	-0.7	32.8	-	47.5	73.9	26.4	Floor noise
Vert.	21160.000	PK	45.4	39.9	-1.7	32.9	-	50.7	73.9	23.2	Floor noise
Vert.	26450.000	PK	46.1	40.2	-0.6	30.6	-	55.1	73.9	18.8	Floor noise
Vert.	5350.000	AV	35.3	31.4	5.4	31.8	4.9	45.1	53.9	8.8	*1)
Vert.	10580.000	AV	33.9	39.4	-2.5	33.6	-	37.3	53.9	16.7	Floor noise
Vert.	15870.000	AV	34.8	36.9	-0.7	32.8	-	38.1	53.9	15.8	Floor noise
Vert.	21160.000	AV	37.3	39.9	-1.7	32.9	-	42.6	53.9	11.3	Floor noise
Vert.	26450.000	AV	37.5	40.2	-0.6	30.6	-	46.5	53.9	7.4	Floor noise

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

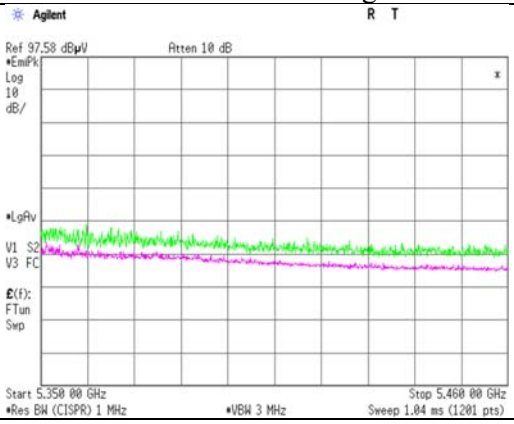
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

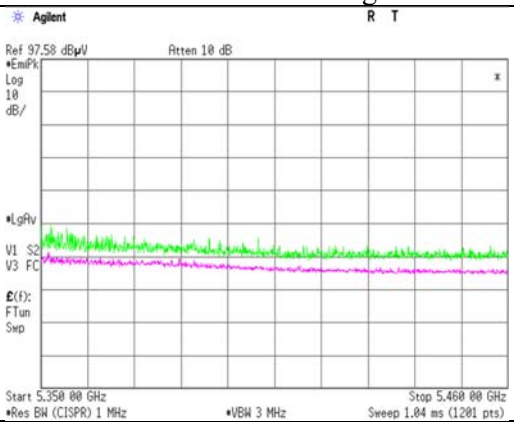
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Takafumi Noguchi
	(1 GHz - 10 GHz)
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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.	5460.000	PK	50.0	31.5	5.4	31.9	-	55.1	73.9	18.8	
Hori.	5470.000	PK	51.5	31.5	5.4	31.9	-	56.6	68.2	11.6	
Hori.	11060.000	PK	41.5	40.0	-2.4	33.6	-	45.5	73.9	28.4	Floor noise
Hori.	16590.000	PK	43.2	38.1	-0.7	32.7	-	47.9	73.9	26.0	Floor noise
Hori.	22120.000	PK	45.3	40.2	-1.6	32.6	-	51.4	73.9	22.5	Floor noise
Hori.	5460.000	AV	34.2	31.5	5.4	31.9	4.9	44.2	53.9	9.7	*1)
Hori.	11060.000	AV	33.9	40.0	-2.4	33.6	-	37.9	53.9	16.0	Floor noise
Hori.	16590.000	AV	35.3	38.1	-0.7	32.7	-	40.1	53.9	13.8	Floor noise
Hori.	22120.000	AV	37.2	40.2	-1.6	32.6	-	43.3	53.9	10.6	Floor noise
Vert.	5460.000	PK	46.1	31.5	5.4	31.9	-	51.2	73.9	22.7	
Vert.	5470.000	PK	46.9	31.5	5.4	31.9	-	52.1	68.2	16.2	
Vert.	11060.000	PK	41.8	40.0	-2.4	33.6	-	45.8	73.9	28.1	Floor noise
Vert.	16590.000	PK	43.2	38.1	-0.7	32.7	-	48.0	73.9	26.0	Floor noise
Vert.	22120.000	PK	45.2	40.2	-1.6	32.6	-	51.3	73.9	22.6	Floor noise
Vert.	5460.000	AV	33.5	31.5	5.4	31.9	4.9	43.5	53.9	10.4	*1)
Vert.	11060.000	AV	33.9	40.0	-2.4	33.6	-	37.9	53.9	16.0	Floor noise
Vert.	16590.000	AV	35.1	38.1	-0.7	32.7	-	39.9	53.9	14.0	Floor noise
Vert.	22120.000	AV	37.2	40.2	-1.6	32.6	-	43.3	53.9	10.6	Floor noise

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

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

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

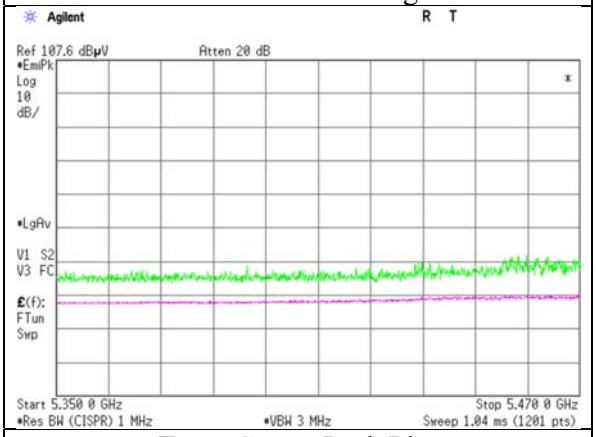
*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Yuta Moriya
	(1 GHz - 10 GHz)
Mode	Tx 11ac-80 5530 MHz

Horizontal

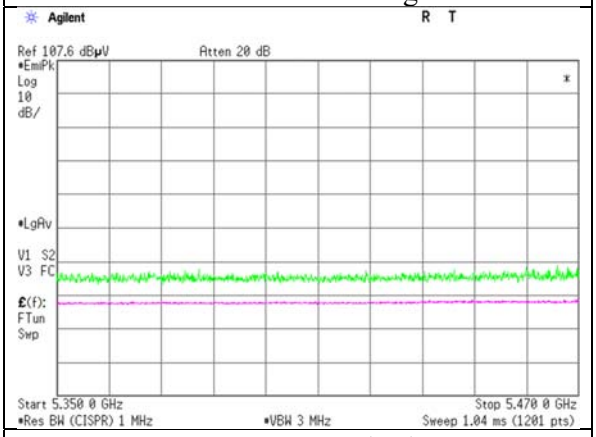
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 2, 2019	April 3, 2019
Temperature / Humidity	21 deg. C / 35 % RH	22 deg. C / 29 % RH
Engineer	Yuta Moriya	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	44.0	31.9	5.5	31.9	-	49.6	68.2	18.6	
Hori.	11220.000	PK	41.8	39.8	-2.3	33.6	-	45.8	73.9	28.1	Floor noise
Hori.	16830.000	PK	43.8	39.5	-0.6	32.6	-	50.1	73.9	23.9	Floor noise
Hori.	22440.000	PK	45.3	40.4	-1.5	32.5	-	51.8	73.9	22.1	Floor noise
Hori.	11220.000	AV	34.0	39.8	-2.3	33.6	-	38.0	53.9	15.9	Floor noise
Hori.	16830.000	AV	36.0	39.5	-0.6	32.6	-	42.2	53.9	11.7	Floor noise
Hori.	22440.000	AV	36.3	40.4	-1.5	32.5	-	42.8	53.9	11.1	Floor noise
Vert.	5725.000	PK	42.6	31.9	5.5	31.9	-	48.2	68.2	20.0	
Vert.	11220.000	PK	42.0	39.8	-2.3	33.6	-	45.9	73.9	28.0	Floor noise
Vert.	16830.000	PK	43.6	39.5	-0.6	32.6	-	49.9	73.9	24.1	Floor noise
Vert.	22440.000	PK	45.4	40.4	-1.5	32.5	-	51.9	73.9	22.0	Floor noise
Vert.	11220.000	AV	33.8	39.8	-2.3	33.6	-	37.7	53.9	16.2	Floor noise
Vert.	16830.000	AV	35.8	39.5	-0.6	32.6	-	42.1	53.9	11.9	Floor noise
Vert.	22440.000	AV	36.3	40.4	-1.5	32.5	-	42.8	53.9	11.1	Floor noise

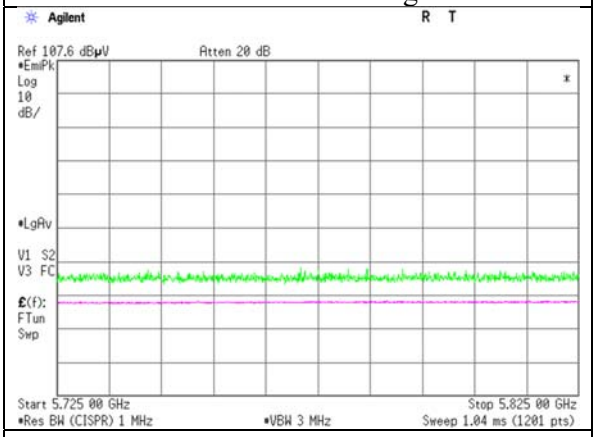
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

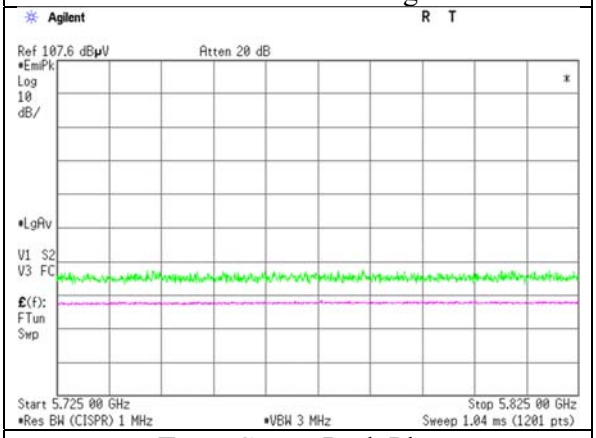
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 2, 2019
Temperature / Humidity	21 deg. C / 35 % RH
Engineer	Yuta Moriya
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

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission

Report No.	12608632H	
Test place	Ise EMC Lab.	
Semi Anechoic Chamber	No.2	No.2
Date	April 3, 2019	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 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	45.0	31.6	5.5	31.9	-	50.2	68.2	18.0	
Hori.	5700.000	PK	49.4	31.8	5.5	31.9	-	54.8	105.2	50.4	
Hori.	5720.000	PK	55.7	31.9	5.5	31.9	-	61.2	110.8	49.6	
Hori.	5725.000	PK	59.4	31.9	5.5	31.9	-	65.0	122.2	57.2	
Hori.	5850.000	PK	47.4	32.3	5.6	31.9	-	53.3	122.2	68.9	
Hori.	5855.000	PK	46.9	32.3	5.6	31.9	-	52.8	110.8	58.0	
Hori.	5875.000	PK	44.3	32.3	5.6	31.9	-	50.2	105.2	55.0	
Hori.	5925.000	PK	42.0	32.3	5.6	31.9	-	47.9	68.2	20.3	
Hori.	11550.000	PK	41.1	39.8	-2.0	33.5	-	45.4	73.9	28.5	Floor noise
Hori.	17325.000	PK	44.3	40.9	-0.5	32.6	-	52.0	73.9	21.9	Floor noise
Hori.	23100.000	PK	45.1	40.7	-1.4	32.3	-	52.1	73.9	21.8	Floor noise
Hori.	11550.000	AV	33.7	39.8	-2.0	33.5	-	38.0	53.9	15.9	Floor noise
Hori.	17325.000	AV	35.8	40.9	-0.5	32.6	-	43.6	53.9	10.3	Floor noise
Hori.	23100.000	AV	37.2	40.7	-1.4	32.3	-	44.2	53.9	9.7	Floor noise
Vert.	5650.000	PK	45.5	31.6	5.5	31.9	-	50.7	68.2	17.5	
Vert.	5700.000	PK	48.7	31.8	5.5	31.9	-	54.1	105.2	51.1	
Vert.	5720.000	PK	56.7	31.9	5.5	31.9	-	62.2	110.8	48.6	
Vert.	5725.000	PK	58.4	31.9	5.5	31.9	-	64.0	122.2	58.2	
Vert.	5850.000	PK	45.3	32.3	5.6	31.9	-	51.2	122.2	71.0	
Vert.	5855.000	PK	44.3	32.3	5.6	31.9	-	50.2	110.8	60.6	
Vert.	5875.000	PK	43.3	32.3	5.6	31.9	-	49.2	105.2	56.0	
Vert.	5925.000	PK	41.9	32.3	5.6	31.9	-	47.8	68.2	20.4	
Vert.	11550.000	PK	41.9	39.8	-2.0	33.5	-	46.2	73.9	27.7	Floor noise
Vert.	17325.000	PK	44.1	40.9	-0.5	32.6	-	51.9	73.9	22.0	Floor noise
Vert.	23100.000	PK	45.4	40.7	-1.4	32.3	-	52.4	73.9	21.6	Floor noise
Vert.	11550.000	AV	33.6	39.8	-2.0	33.5	-	37.9	53.9	16.0	Floor noise
Vert.	17325.000	AV	35.5	40.9	-0.5	32.6	-	43.3	53.9	10.6	Floor noise
Vert.	23100.000	AV	37.3	40.7	-1.4	32.3	-	44.2	53.9	9.7	Floor noise

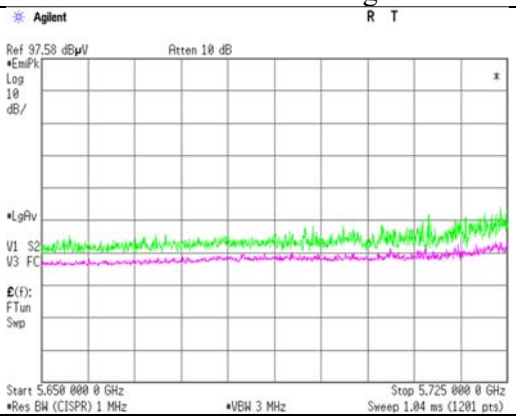
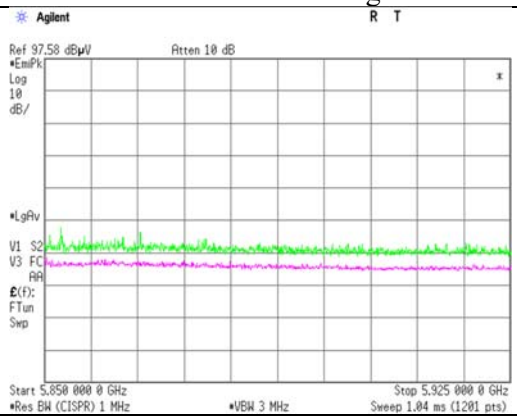
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

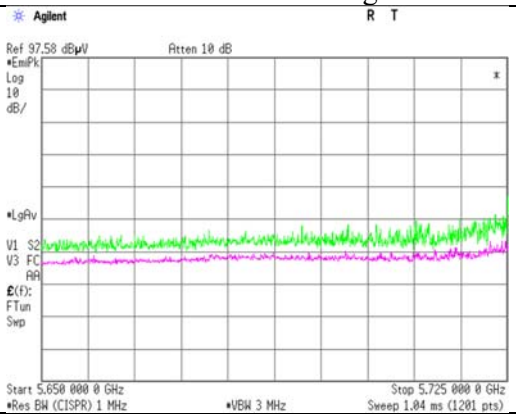
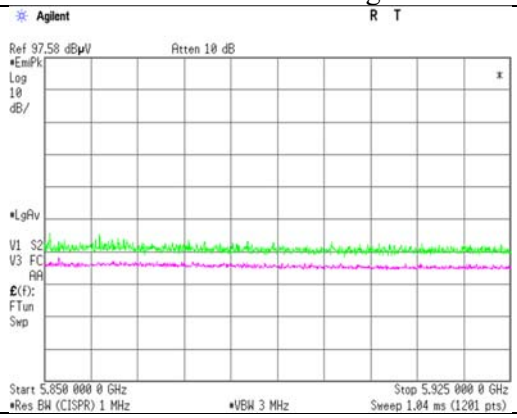
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

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

Radiated Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.2
Date	April 3, 2019
Temperature / Humidity	19 deg. C / 29 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80 5775 MHz

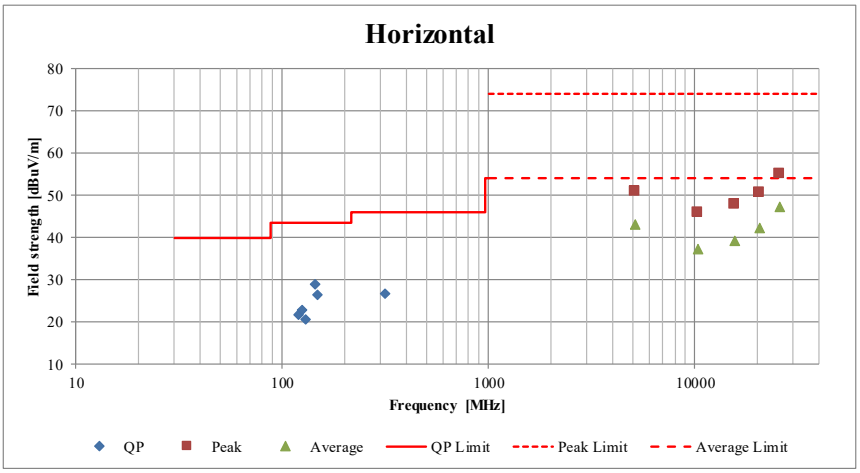
Horizontal	Horizontal
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

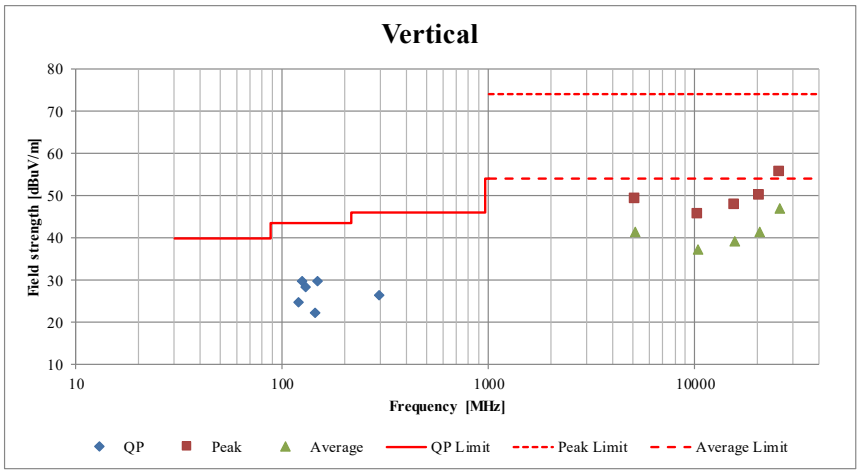
Vertical	Vertical
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.
Final result of restricted band edge was shown in tabular data.

Radiated Spurious Emission
(Plot data, Worst case)

Report No.	12608632H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.2	No.2	No.2	No.2
Date	April 2, 2019	April 3, 2019	April 3, 2019	April 4, 2019
Temperature / Humidity	21 deg. C / 35 % RH	19 deg. C / 29 % RH	22 deg. C / 29 % RH	22 deg. C / 29 % RH
Engineer	Takafumi Noguchi (1 GHz - 10 GHz)	Takafumi Noguchi (10 GHz - 18 GHz)	Yuta Moriya (18 GHz - 40 GHz)	Takafumi Noguchi (30 MHz - 1 GHz)
Mode	Tx 11ac-20 5180 MHz			





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

Radiated Spurious Emission

Report No.	12608632H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.2	No.2	No.2
Date	May 17, 2019	May 16, 2019	May 17, 2019
Temperature / Humidity	21 deg. C / 35 % RH	24 deg. C / 39 % RH	21 deg. C / 35 % RH
Engineer	Yuta Moriya	Junki Nagatomi	Yuta Moriya
	(1 GHz - 10 GHz)	(10 GHz - 40 GHz)	Below 1GHz
Mode	Tx 11ac-80 5210 MHz + BT Tx 3DH5 Hopping on		

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.	82.221	QP	36.0	6.9	7.3	30.3	-	19.8	40.0	20.2	
Hori.	124.332	QP	32.4	13.2	7.6	30.1	-	23.1	43.5	20.4	
Hori.	143.321	QP	35.2	14.5	7.8	30.0	-	27.5	43.5	16.1	
Hori.	150.622	QP	30.2	14.9	7.8	30.0	-	22.9	43.5	20.6	
Hori.	169.212	QP	30.0	15.4	8.0	29.9	-	23.5	43.5	20.0	
Hori.	655.523	QP	26.7	19.3	10.4	29.4	-	26.9	46.0	19.1	
Hori.	5150.000	PK	50.3	31.9	7.2	33.4	-	55.9	73.9	18.0	
Hori.	10620.000	PK	43.6	39.5	-2.5	33.6	-	47.0	73.9	26.9	Floor noise
Hori.	15630.000	PK	43.2	37.4	-0.7	32.8	-	47.2	73.9	26.7	Floor noise
Hori.	20840.000	PK	43.5	40.6	-1.8	32.9	-	49.4	73.9	24.5	Floor noise
Hori.	26050.000	PK	46.7	40.9	-0.1	32.8	-	54.7	73.9	19.2	Floor noise
Hori.	5150.000	AV	35.8	31.9	7.2	33.4	4.9	46.4	53.9	7.6	*1)
Hori.	10620.000	AV	35.6	39.5	-2.5	33.6	-	39.0	53.9	14.9	Floor noise
Hori.	15630.000	AV	35.5	37.4	-0.7	32.8	-	39.5	53.9	14.4	Floor noise
Hori.	20840.000	AV	37.2	40.6	-1.8	32.9	-	43.1	53.9	10.8	Floor noise
Hori.	26050.000	AV	39.3	40.9	-0.1	32.8	-	47.3	53.9	6.6	Floor noise
Vert.	82.221	QP	38.6	6.9	7.3	30.3	-	22.4	40.0	17.6	
Vert.	124.332	QP	37.9	13.2	7.6	30.1	-	28.6	43.5	14.9	
Vert.	143.321	QP	38.2	14.5	7.8	30.0	-	30.4	43.5	13.1	
Vert.	150.622	QP	34.5	14.9	7.8	30.0	-	27.2	43.5	16.3	
Vert.	169.212	QP	33.2	15.4	8.0	29.9	-	26.7	43.5	16.8	
Vert.	655.523	QP	31.1	19.3	10.4	29.4	-	31.3	46.0	14.7	
Vert.	5150.000	PK	47.5	31.9	7.2	33.4	-	53.2	73.9	20.8	
Vert.	10620.000	PK	42.0	39.5	-2.5	33.6	-	45.4	73.9	28.5	Floor noise
Vert.	15630.000	PK	43.3	37.4	-0.7	32.8	-	47.3	73.9	26.6	Floor noise
Vert.	20840.000	PK	44.2	40.6	-1.3	32.5	-	51.0	73.9	22.9	Floor noise
Vert.	26050.000	PK	46.4	40.9	-0.1	32.8	-	54.4	73.9	19.5	Floor noise
Vert.	5150.000	AV	34.0	31.9	7.2	33.4	4.9	44.5	53.9	9.4	*1)
Vert.	10620.000	AV	34.3	39.5	-2.5	33.6	-	37.7	53.9	16.2	Floor noise
Vert.	15630.000	AV	36.7	37.4	-0.7	32.8	-	40.7	53.9	13.2	Floor noise
Vert.	20840.000	AV	36.5	40.6	-1.3	32.5	-	43.3	53.9	10.6	Floor noise
Vert.	26050.000	AV	38.6	40.9	-0.1	32.8	-	46.6	53.9	7.3	Floor noise

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

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

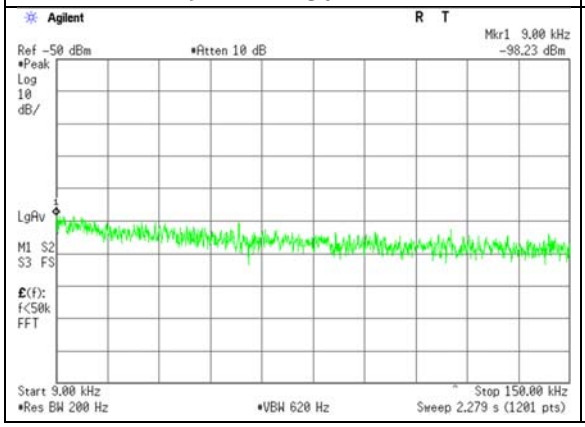
Distance factor: 1 GHz - 10 GHz 20log (3.65 m / 3.0 m) = 1.71 dB
10 GHz - 40 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

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

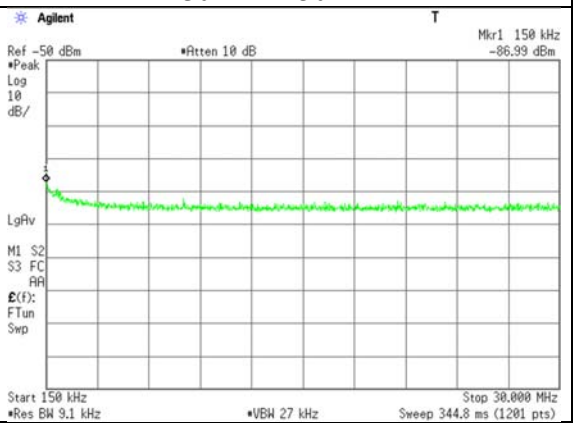
Conducted Spurious Emission

Report No.	12608632H
Test place	Ise EMC Lab. No.4 Measurement Room
Date	March 25, 2019
Temperature / Humidity	23 deg. C / 40 % RH
Engineer	Ryota Yamanaka
Mode	Tx 11ac-20 5180 MHz

9 kHz - 150 kHz



150 kHz - 30 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
9.00	-98.2	1.00	9.8	5.7	2	-78.7	300	6.0	-17.5	48.5	66.0	
150.00	-87.0	1.00	9.8	5.7	2	-67.5	300	6.0	-6.2	24.0	30.2	

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

APPENDIX 2: Test instruments

Test Instruments

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Due Date	Cal Int
AT/RE	141901	Spectrum Analyzer	AGILENT	E4440A	MY48250080	10/04/2018	10/31/2019	12
AT	141361	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	03/04/2019	03/31/2020	12
AT	141813	Power Meter	DARE!! Instruments	RPR3006W	14I00048SNO081	11/06/2018	11/30/2019	12
AT	141814	Power Meter	DARE!! Instruments	RPR3006W	14I00048SNO082	11/06/2018	11/30/2019	12
AT	141249	Attenuator	Weinschel Associates	WA1-20-33	100132	04/02/2019	04/30/2020	12
AT	141250	Attenuator	Weinschel Associates	WA1-20-33	100133	04/02/2019	04/30/2020	12
AT	141567	Thermo-Hygrometer	CUSTOM	CTH-201	0008	01/11/2019	01/31/2020	12
AT	141156	Attenuator(10dB)	Weinschel Corp	2	BL1173	11/02/2018	11/30/2019	12
AT	141395	Coaxial Cable	UL Japan	-	-	11/13/2018	11/30/2019	12
AT	141343	Barometer	Sunoh	SBR121	596	02/08/2018	02/28/2021	36
AT	141884	Spectrum Analyzer	AGILENT	E4448A	MY44020357	03/13/2019	03/31/2020	12
AT	141563	Thermo-Hygrometer	CUSTOM	CTH-180	1701	01/11/2019	01/31/2020	12
RE	141542	Digital Tester	Fluke Corporation	FLUKE 26-3	78030611	08/21/2018	08/31/2019	12
RE/AT	141152	EMI measurement program	TSJ	TEPTO-DV	-	-	-	-
RE	142228	Measure	KOMELON	KMC-36	-	-	-	-
RE	141580	MicroWave System Amplifier	AGILENT	83017A	MY39500779	03/05/2019	03/31/2020	12
RE	141556	Thermo-Hygrometer	CUSTOM	CTH-201	0003	12/05/2018	12/31/2019	12
RE	177964	Microwave Cable	Junkosha INC.	MMX221	1901S329(1m)/ 1902S579(5m)	03/05/2019	03/31/2020	12
RE	142006	AC2_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-06902	04/01/2018	04/29/2019	12
RE	141512	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	06/06/2018	06/30/2019	12
RE	141588	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400-33-8P / AMF-4F-2600	1871355 /1871328	09/21/2018	09/30/2019	12
RE	141406	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCA	7001	09/19/2018	09/30/2019	12
RE	141517	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	152399	06/08/2018	06/30/2019	12
RE	160324	Coaxial Cable	Huber+Suhner	SUCOFLEX 102A	MY009/2A	11/08/2018	11/30/2019	12
RE	141899	Spectrum Analyzer	AGILENT	E4448A	MY46180655	08/10/2018	08/31/2019	12
RE	141279	Microwave Cable	Junkosha	MMX221-00500DMSDMS	1502S303	03/05/2019	03/31/2020	12
RE	141503	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	06/06/2018	06/30/2019	12
RE	141203	Attenuator(6dB)	Weinschel Corp	2	BK7970	11/05/2018	11/30/2019	12
RE	141427	Biconical Antenna	Schwarzbeck	VHA9103B	8031	05/31/2018	05/31/2019	12
RE	141317	Coaxial Cable	Fujikura/Agilent	-	-	02/25/2019	02/29/2020	12
RE	141950	EMI Test Receiver	Rohde & Schwarz	ESU26	100412	06/15/2018	06/30/2019	12
RE	141578	Pre Amplifier	AGILENT	8447D	2944A10845	09/19/2018	09/30/2019	12
RE	142004	AC2_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	06/29/2018	06/30/2020	24
RE	141265	Logperiodic Antenna(200-1000MHz)	Schwarzbeck	VUSLP9111B	911B-190	03/25/2019	03/31/2020	12
RE	141949	Test Receiver	Rohde & Schwarz	ESCI	100767	08/06/2018	08/31/2019	12
RE	141424	Biconical Antenna	Schwarzbeck	BBA9106	1915	06/04/2018	06/30/2019	12
RE	141554	Thermo-Hygrometer	CUSTOM	CTH-180	1301	01/11/2019	01/31/2020	12
RE	141323	Coaxial cable	UL Japan	-	-	07/03/2018	07/31/2019	12
RE	142008	AC3_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	06/26/2018	06/30/2020	24
RE	141266	Logperiodic Antenna(200-1000MHz)	Schwarzbeck	VUSLP9111B	911B-191	03/25/2019	03/31/2020	12

Test Instruments (2/2)

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Calibration Due Date	Cal Int
RE	141532	DIGITAL HiTESTER	HIOKI	3805	51201197	01/29/2019	01/31/2020	12
RE	142183	Measure	KOMELON	KMC-36	-	-	-	-
RE	141582	Pre Amplifier	SONOMA INSTRUMENT	310	260834	02/08/2019	02/29/2020	12
RE	148897	Attenuator	KEYSIGHT	8491A	MY52462349	12/20/2018	12/31/2019	12
RE	142006	AC2_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-06902	04/01/2019	04/30/2020	12
RE	141296	High Pass Filter 3.5-18.0GHz	UL Japan	HPF SELECTOR	002	09/19/2018	09/30/2019	12
RE	141427	Biconical Antenna	Schwarzbeck	VHA9103B	8031	04/12/2019	04/30/2020	12

***Hyphens for Last Calibration Date, Calibration Due Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.**

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

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

Test item:

RE: Radiated Emission
AT: Antenna Terminal Conducted test