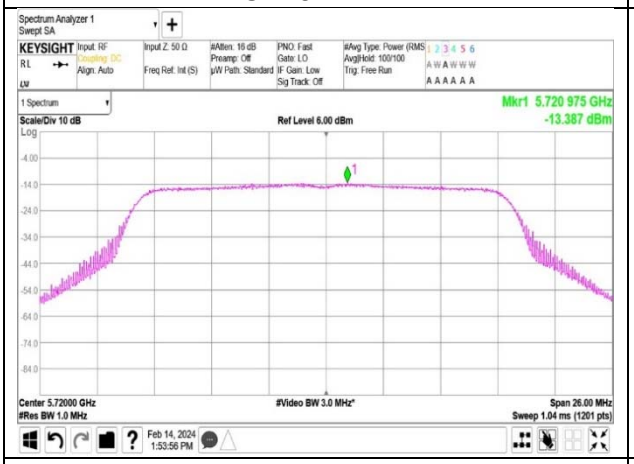
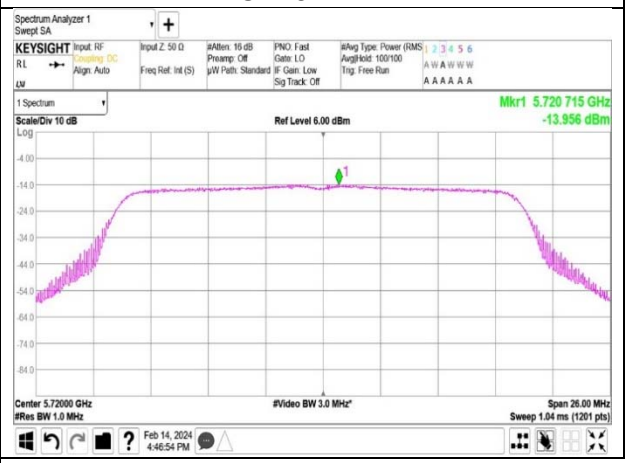
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx

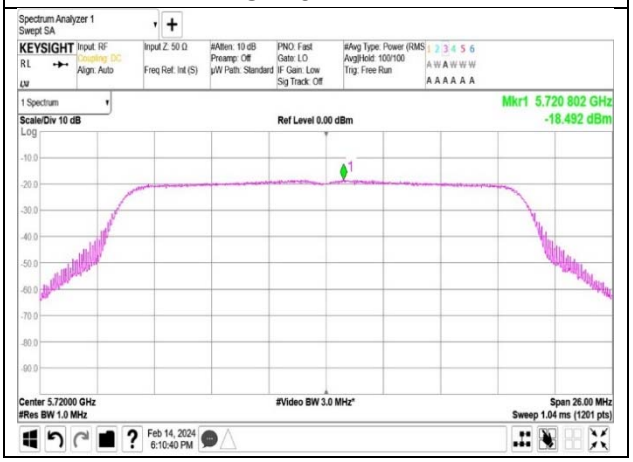
11a, Chain 2
5720 MHz



11n-20 (SISO), Chain 2
5720 MHz



11ac-20 (SISO), Chain 2
5720 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11n-40 (SISO)

Chain 2 (*1) Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Frequency [MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm/MHz]	PSD (Conducted) Limit [dBm/MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm/MHz]	PSD (e.i.r.p.) Limit [dBm/MHz]	PSD (e.i.r.p.) Margin [dB]
5190	5186.663	-15.56	1.60	9.98	0.00	2.29	0.00	***-3.98***	11.00	14.98	***-1.69***	17.00	18.69
5230	5228.353	-16.20	1.57	9.98	0.00	2.29	0.00	-4.65	11.00	15.65	-2.36	17.00	19.36
5270	5271.647	-16.46	1.58	9.98	0.00	2.29	0.00	***-4.90***	11.00	15.90	***-2.61***	17.00	19.61
5310	5308.613	-16.59	1.62	9.98	0.00	2.29	0.00	-4.99	11.00	15.99	-2.70	17.00	19.70
5510	5508.353	-16.93	1.70	9.98	0.00	2.29	0.00	-5.25	11.00	16.25	-2.96	17.00	19.96
5550	5548.093	-17.75	1.70	9.98	0.00	2.29	0.00	-6.07	11.00	17.07	-3.78	17.00	20.78
5670	5667.573	-17.03	1.59	9.98	0.00	2.29	0.00	-5.46	11.00	16.46	-3.17	17.00	20.17
5710	5711.257	-16.78	1.60	9.98	0.00	2.29	0.00	***-5.20***	11.00	16.20	***-2.91***	17.00	19.91
5755	5752.573	-20.03	1.58	9.99	0.00	2.29	0.27	-8.19	30.00	38.19	-5.90	36.00	41.90
5795	5796.560	-19.42	1.57	9.99	0.00	2.29	0.27	-7.59	30.00	37.59	-5.30	36.00	41.30

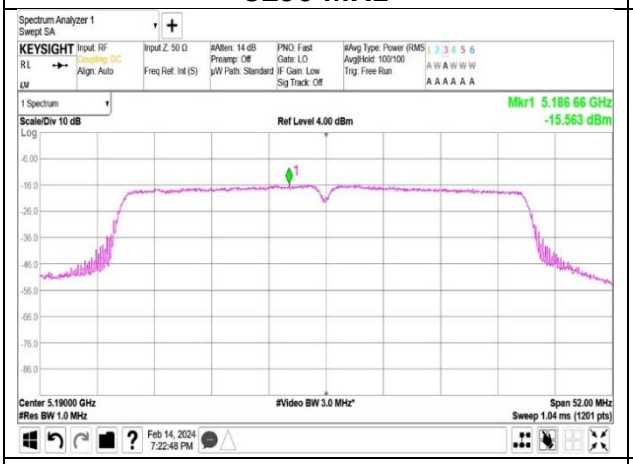
Sample Calculation:
PSD: Power Spectral Density (*1) Power density was measured with using the gate function of spectrum analyzer.
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11n-40 (SISO)

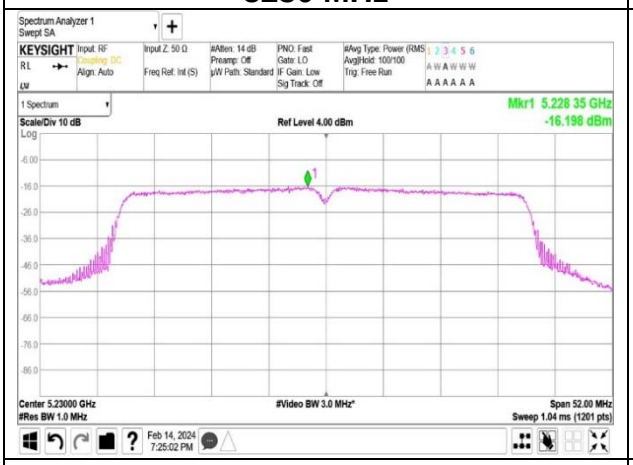
11n-40 (SISO), Chain 2

5190 MHz

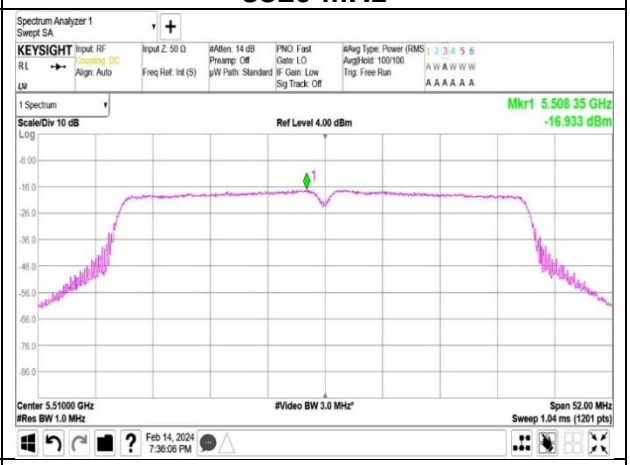


5310 MHz

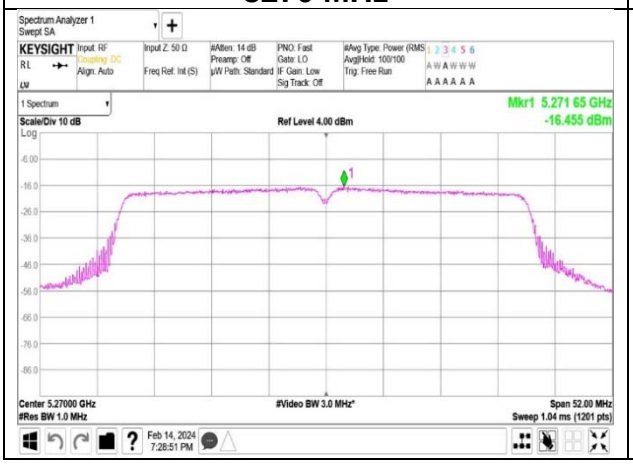
5230 MHz



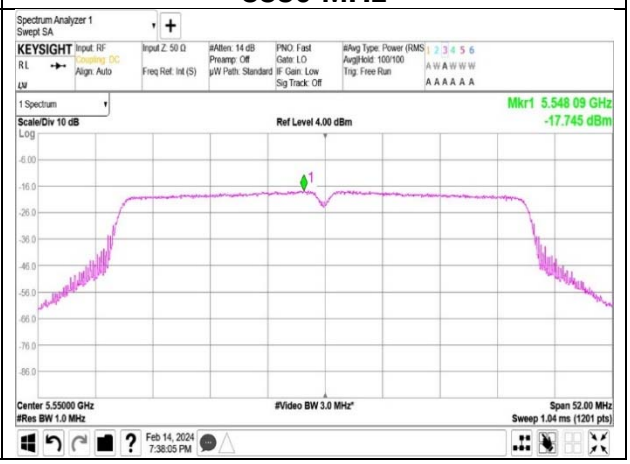
5510 MHz



5270 MHz



5550 MHz



Maximum Power Spectral Density

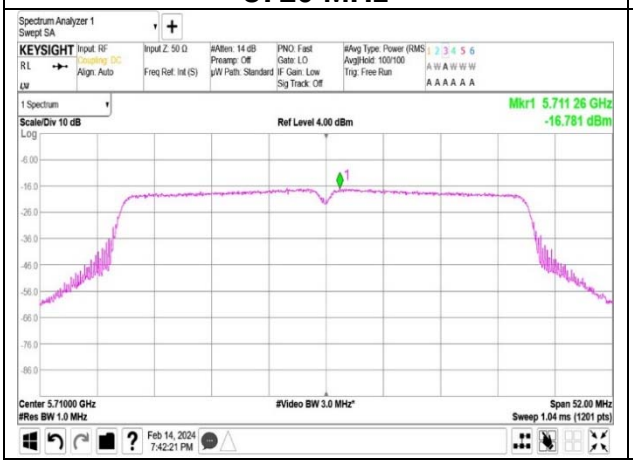
Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11n-40 (SISO)

11n-40 (SISO), Chain 2

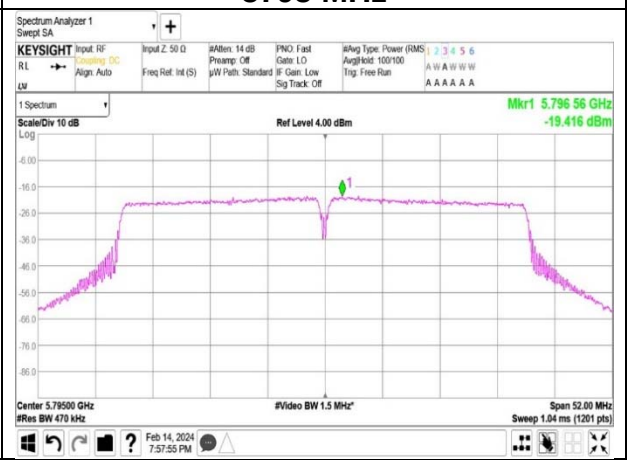
5670 MHz

5755 MHz

5710 MHz



5795 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11ac-40 (SISO)

Chain 2 (*1) Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Frequency [MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm/MHz]	PSD (Conducted) Limit [dBm/MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm/MHz]	PSD (e.i.r.p.) Limit [dBm/MHz]	PSD (e.i.r.p.) Margin [dB]
5190	5187.833	-19.47	1.60	9.98	0.00	2.29	0.00	***-7.89***	11.00	18.89	***-5.60***	17.00	22.60
5230	5227.920	-19.95	1.57	9.98	0.00	2.29	0.00	-8.40	11.00	19.40	-6.11	17.00	23.11
5270	5266.533	-20.43	1.58	9.98	0.00	2.29	0.00	***-8.87***	11.00	19.87	***-6.58***	17.00	23.58
5310	5311.647	-20.51	1.62	9.98	0.00	2.29	0.00	-8.91	11.00	19.91	-6.62	17.00	23.62
5510	5507.920	-20.77	1.70	9.98	0.00	2.29	0.00	***-9.09***	11.00	20.09	***-6.80***	17.00	23.80
5550	5547.400	-21.63	1.70	9.98	0.00	2.29	0.00	-9.95	11.00	20.95	-7.66	17.00	24.66
5670	5671.647	-21.32	1.59	9.98	0.00	2.29	0.00	-9.75	11.00	20.75	-7.46	17.00	24.46
5710	5712.167	-20.85	1.60	9.98	0.00	2.29	0.00	-9.27	11.00	20.27	-6.98	17.00	23.98
5755	5752.443	-23.62	1.58	9.99	0.00	2.29	0.27	-11.78	30.00	41.78	-9.49	36.00	45.49
5795	5791.967	-23.00	1.57	9.99	0.00	2.29	0.27	-11.17	30.00	41.17	-8.88	36.00	44.88

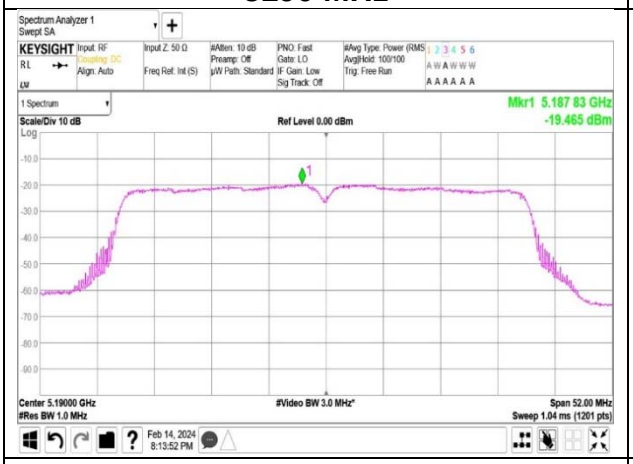
Sample Calculation:
PSD: Power Spectral Density (*1) Power density was measured with using the gate function of spectrum analyzer.
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11ac-40 (SISO)

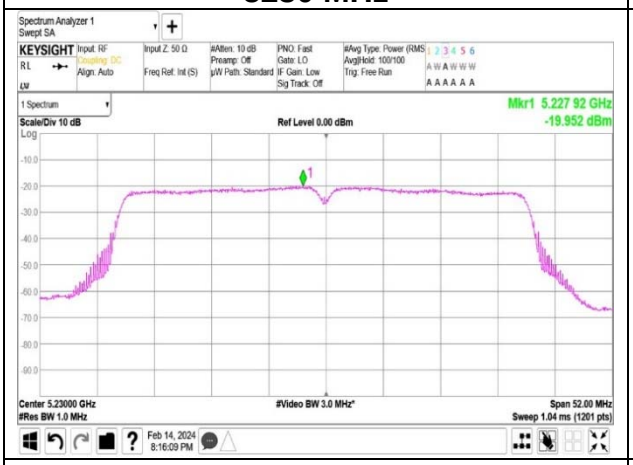
11ac-40 (SISO), Chain 2

5190 MHz

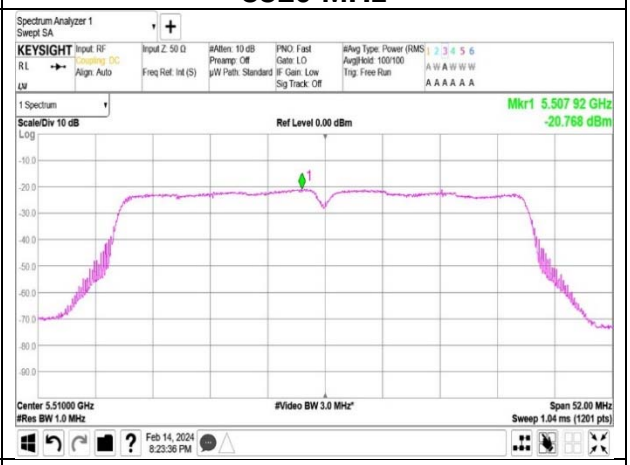


5310 MHz

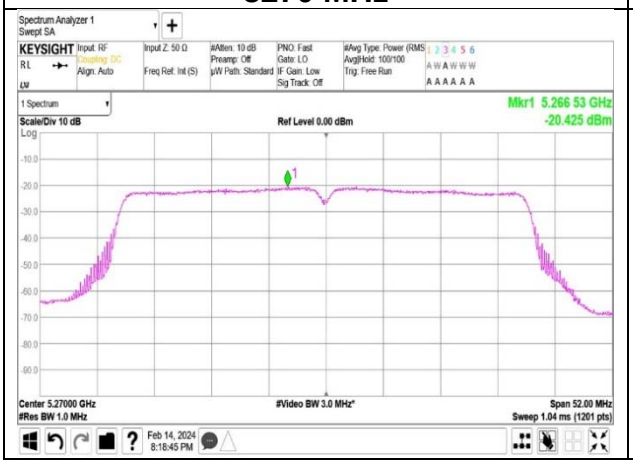
5230 MHz



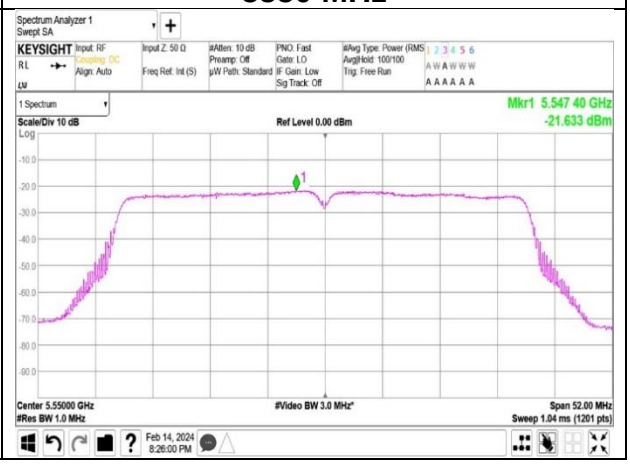
5510 MHz



5270 MHz



5550 MHz

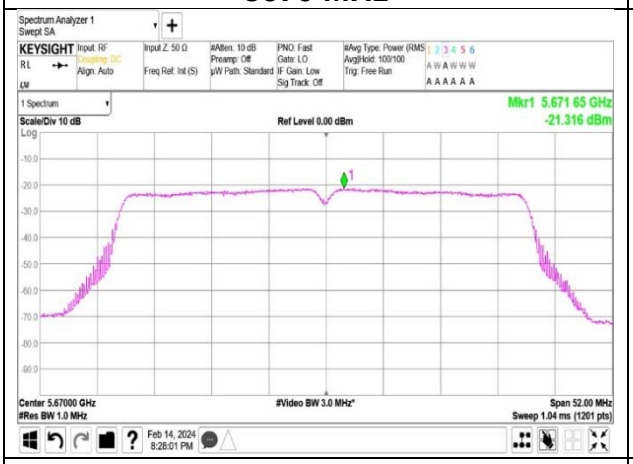


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11ac-40 (SISO)

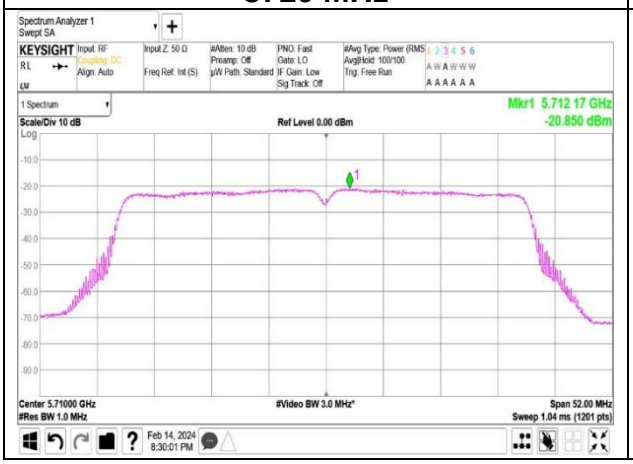
11ac-40 (SISO), Chain 2

5670 MHz



5755 MHz

5710 MHz



5795 MHz

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11ac-80 (SISO)

Chain 2 (*1) Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Frequency [MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted) Result [dBm/MHz]	PSD (Conducted) Limit [dBm/MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm/MHz]	PSD (e.i.r.p.) Limit [dBm/MHz]	PSD (e.i.r.p.) Margin [dB]
5210	5180.620	-23.36	1.60	9.98	0.00	2.29	0.00	***-11.78***	11.00	22.78	***-9.49***	17.00	26.49
5290	5279.340	-24.09	1.62	9.98	0.00	2.29	0.00	***-12.49***	11.00	23.49	***-10.20***	17.00	27.20
5530	5500.273	-24.93	1.70	9.98	0.00	2.29	0.00	-13.25	11.00	24.25	-10.96	17.00	27.96
5610	5591.713	-25.00	1.70	9.98	0.00	2.29	0.00	-13.32	11.00	24.32	-11.03	17.00	28.03
5690	5660.100	-24.73	1.60	9.98	0.00	2.29	0.00	***-13.15***	11.00	24.15	***-10.86***	17.00	27.86
5775	5742.933	-27.08	1.57	9.99	0.00	2.29	0.27	-15.25	30.00	45.25	-12.96	36.00	48.96

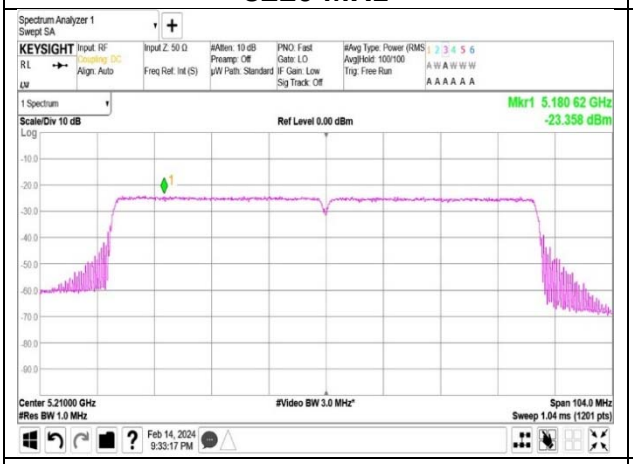
Sample Calculation:
PSD: Power Spectral Density (*1) Power density was measured with using the gate function of spectrum analyzer.
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 14, 2024
Temperature / Humidity	23 deg. C / 27 % RH
Engineer	Kenichi Adachi
Mode	Tx 11ac-80 (SISO)

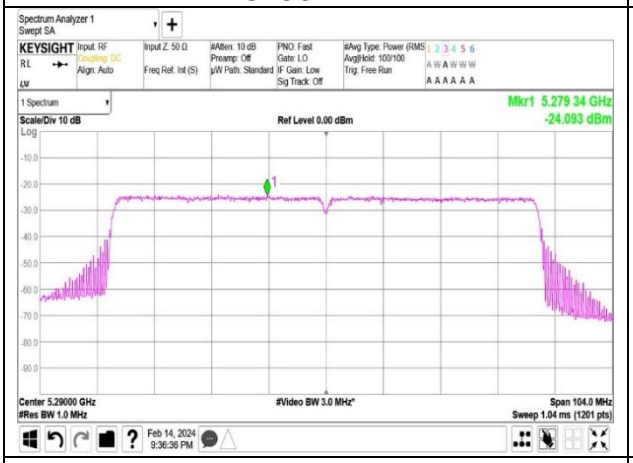
11ac-80 (SISO), Chain 2

5210 MHz



5610 MHz

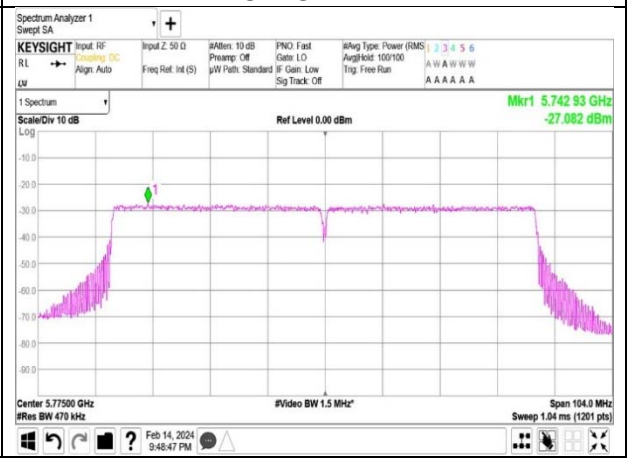
5290 MHz



5690 MHz

5530 MHz

5775 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

Chain 1+2

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	0.47	0.43	0.90	***-0.48***	11.00	11.48	1.75	1.60	3.35	***5.25***	17.00	11.75
5220	0.42	0.39	0.80	-0.95	11.00	11.95	1.56	1.45	3.00	4.78	17.00	12.22
5240	0.42	0.37	0.79	-1.02	11.00	12.02	1.58	1.37	2.96	4.71	17.00	12.29
5260	0.41	0.35	0.76	***-1.21***	11.00	12.21	1.52	1.31	2.83	***4.52***	17.00	12.48
5300	0.35	0.35	0.70	-1.53	11.00	12.53	1.30	1.33	2.63	4.20	17.00	12.80
5320	0.30	0.31	0.61	-2.17	11.00	13.17	1.11	1.16	2.27	3.56	17.00	13.44
5500	0.28	0.28	0.56	***-2.54***	11.00	13.54	1.05	1.04	2.08	***3.19***	17.00	13.81
5580	0.28	0.25	0.53	-2.72	11.00	13.72	1.04	0.95	2.00	3.01	17.00	13.99
5700	0.27	0.25	0.52	-2.85	11.00	13.85	1.01	0.93	1.94	2.88	17.00	14.12
5720	0.25	0.26	0.51	-2.94	11.00	13.94	0.94	0.96	1.90	2.79	17.00	14.21
5745	0.13	0.15	0.29	-5.43	30.00	35.43	0.50	0.57	1.07	0.30	36.00	35.70
5785	0.13	0.17	0.29	-5.31	30.00	35.31	0.47	0.63	1.10	0.42	36.00	35.58
5825	0.13	0.17	0.30	***-5.28***	30.00	35.28	0.48	0.63	1.11	***0.45***	36.00	35.55

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.00	0.00	-14.85	1.56	9.98	5.73	-3.31	2.42	-15.20	1.57	9.95	5.73	-3.68	2.05
5220	0.00	0.00	-15.35	1.57	9.98	5.73	-3.80	1.93	-15.65	1.57	9.95	5.73	-4.13	1.60
5240	0.00	0.00	-15.24	1.53	9.98	5.73	-3.73	2.00	-15.86	1.55	9.95	5.73	-4.36	1.37
5260	0.00	0.00	-15.44	1.56	9.98	5.73	-3.90	1.83	-16.08	1.57	9.95	5.73	-4.56	1.17
5300	0.00	0.00	-16.11	1.56	9.98	5.73	-4.57	1.16	-16.02	1.57	9.95	5.73	-4.50	1.23
5320	0.00	0.00	-16.84	1.58	9.98	5.73	-5.28	0.45	-16.65	1.60	9.95	5.73	-5.10	0.63
5500	0.00	0.00	-17.21	1.69	9.98	5.73	-5.54	0.20	-17.22	1.71	9.95	5.73	-5.56	0.17
5580	0.00	0.00	-17.22	1.70	9.98	5.73	-5.54	0.19	-17.60	1.71	9.95	5.73	-5.94	-0.20
5700	0.00	0.00	-17.25	1.60	9.98	5.73	-5.67	0.06	-17.60	1.60	9.95	5.73	-6.05	-0.32
5720	0.00	0.00	-17.59	1.60	9.98	5.73	-6.01	-0.28	-17.45	1.61	9.95	5.73	-5.89	-0.16
5745	0.00	0.27	-20.54	1.57	9.99	5.73	-8.71	-2.98	-20.00	1.58	9.95	5.73	-8.20	-2.47
5785	0.00	0.27	-20.83	1.58	9.99	5.73	-8.99	-3.26	-19.56	1.58	9.96	5.73	-7.75	-2.02
5825	0.00	0.27	-20.80	1.59	9.99	5.73	-8.95	-3.22	-19.54	1.59	9.96	5.73	-7.72	-1.99

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 + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Directional Gain
Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams)
Number of transmit antennas = 2, Number of spatial streams = 1
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

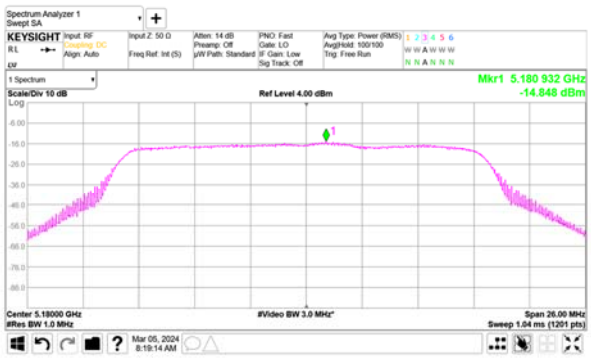
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

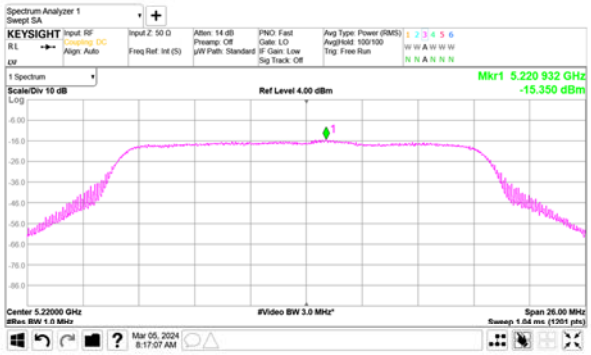
11a

Chain 1

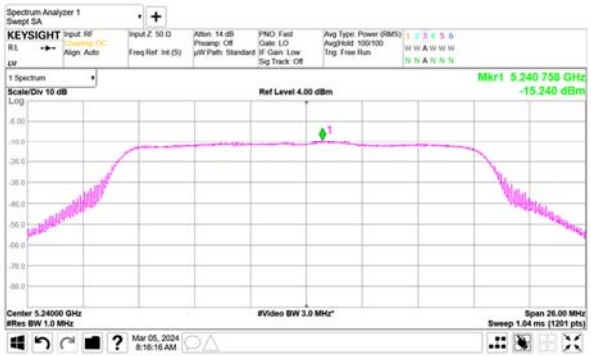
5180 MHz



5220 MHz

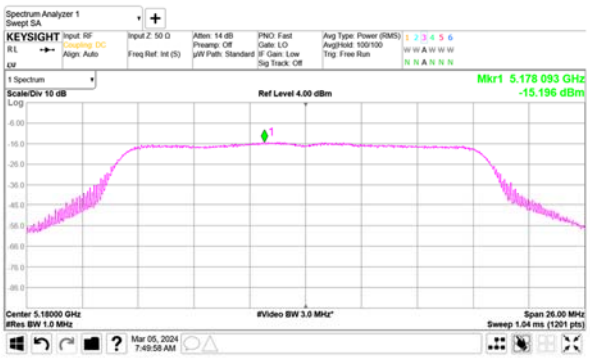


5240 MHz

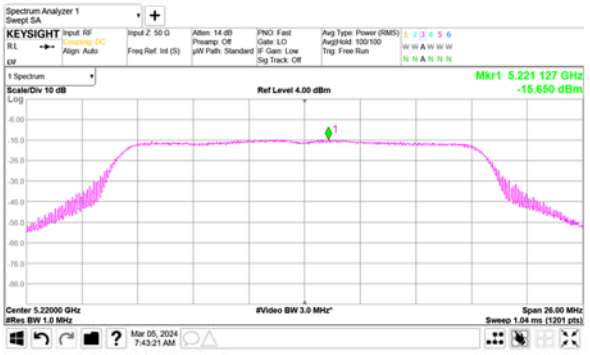


Chain 2

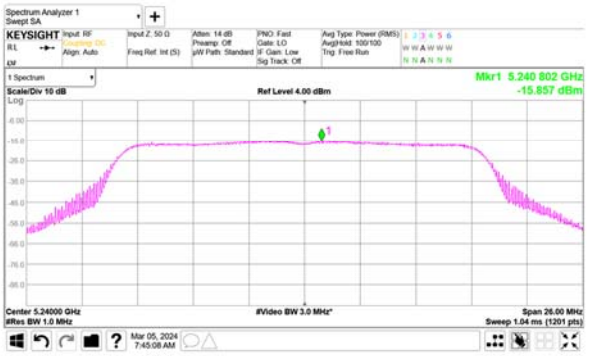
5180 MHz



5220 MHz



5240 MHz



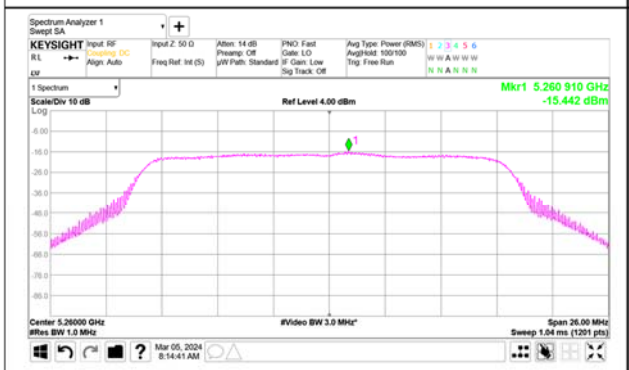
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

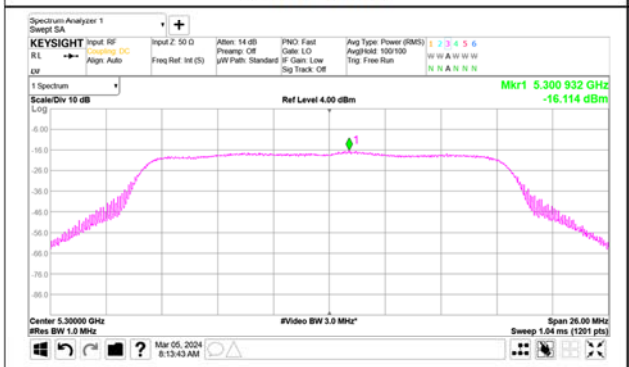
11a

Chain 1

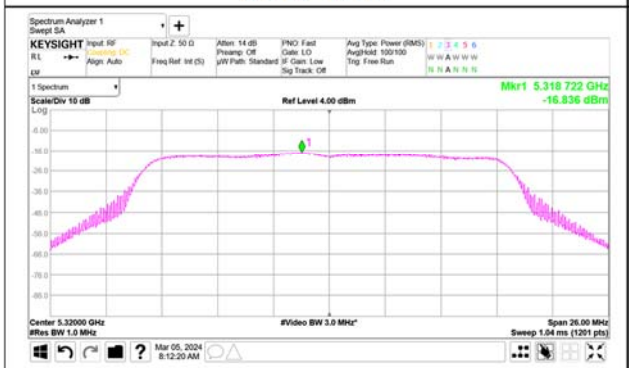
5260 MHz



5300 MHz

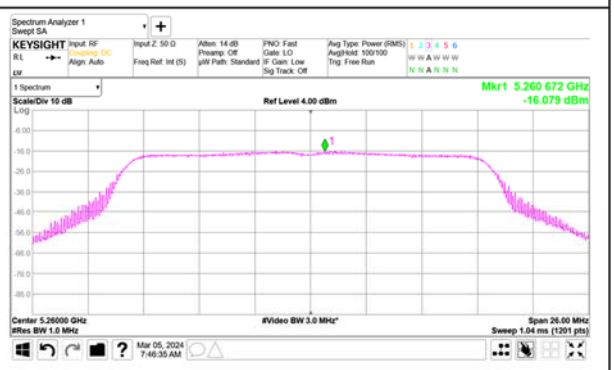


5320 MHz

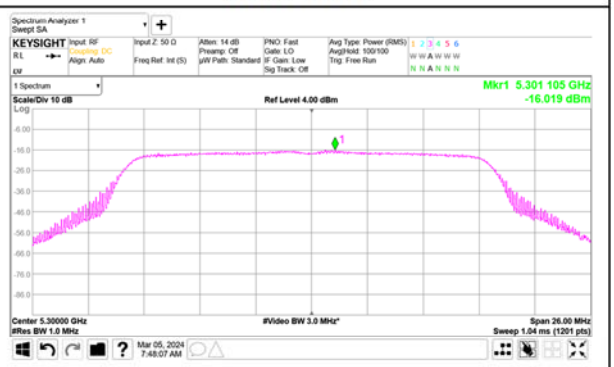


Chain 2

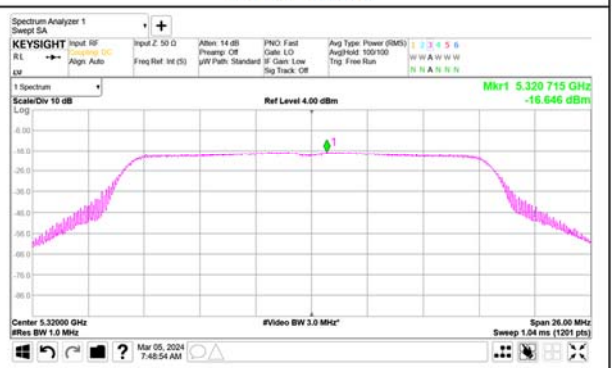
5260 MHz



5300 MHz



5320 MHz



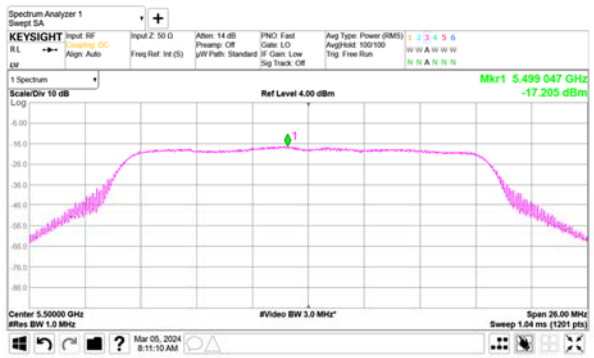
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

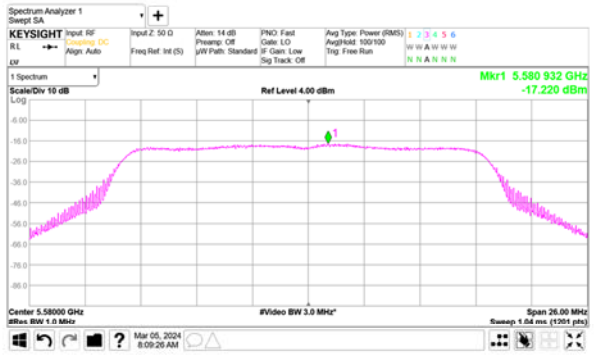
11a

Chain 1

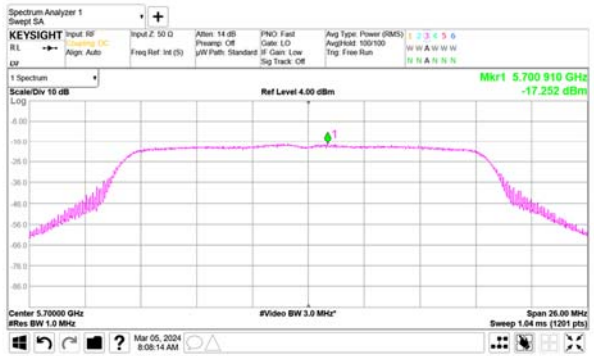
5500 MHz



5580 MHz

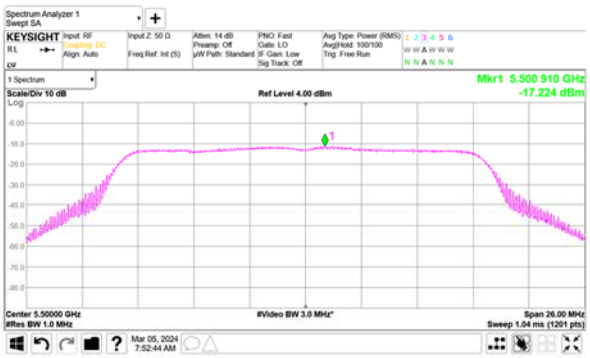


5700 MHz

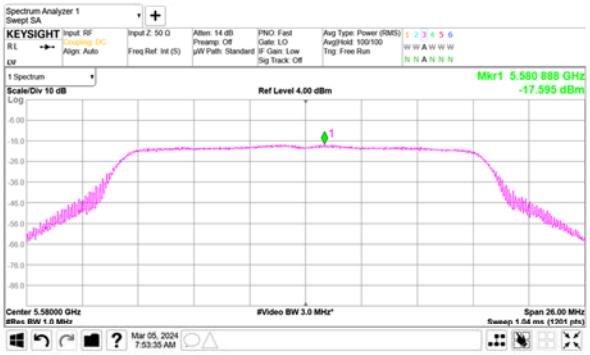


Chain 2

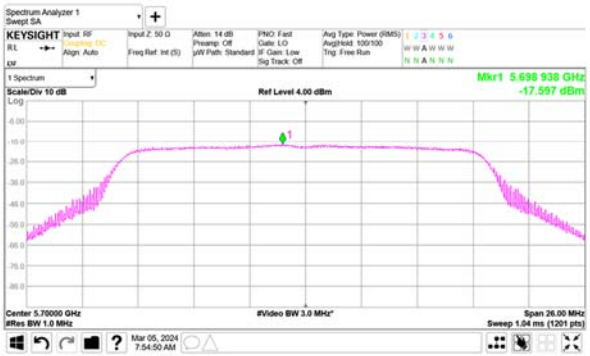
5500 MHz



5580 MHz



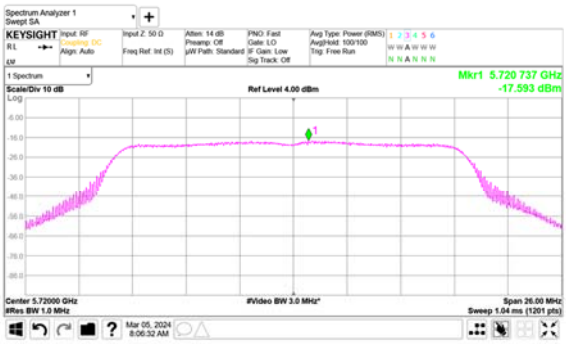
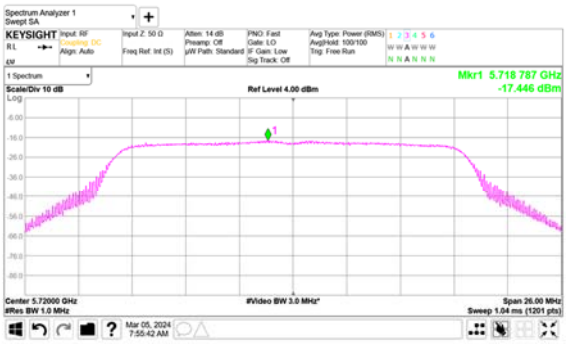
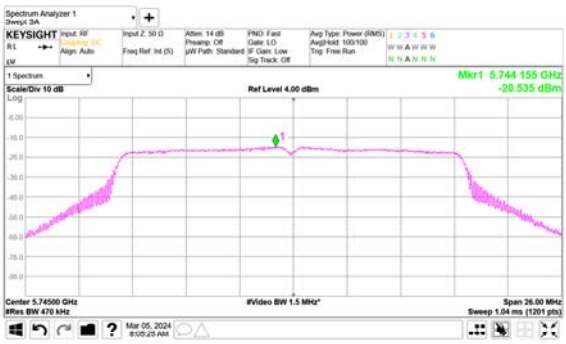
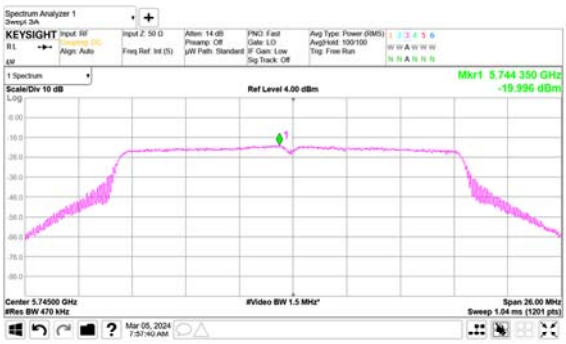
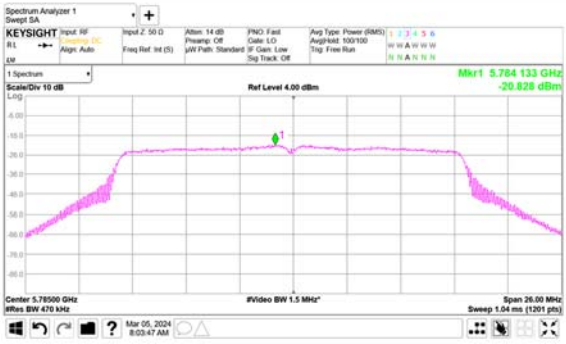
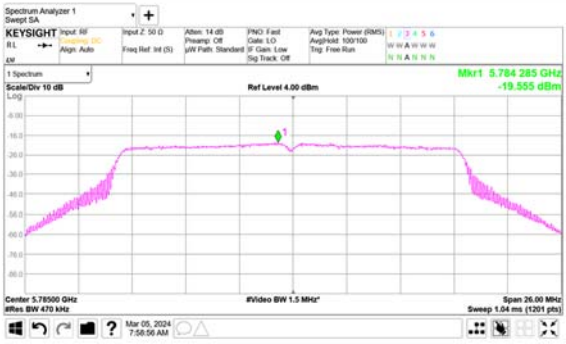
5700 MHz



Maximum Power Spectral Density

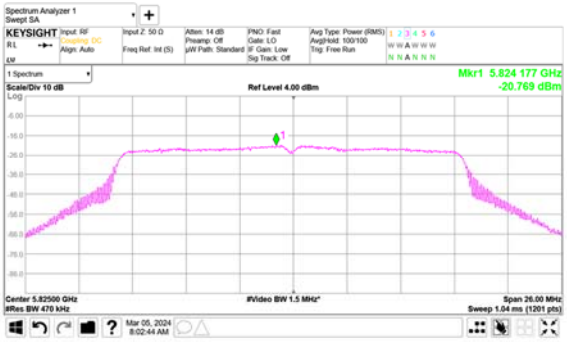
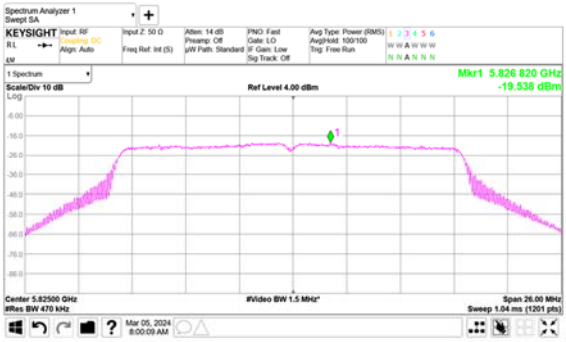
Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

11a

Chain 1	Chain 2
5720 MHz	5720 MHz
	
5745 MHz	5745 MHz
	
5785 MHz	5785 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	March 5, 2024
Temperature / Humidity	23 deg. C / 32 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a (CDD)

11a	
Chain 1	Chain 2
5825 MHz	5825 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

Chain 1+2

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	0.33	0.31	0.64	***-1.93***	11.00	12.93	1.25	1.15	2.40	***3.80***	17.00	13.20
5220	0.30	0.26	0.56	-2.52	11.00	13.52	1.12	0.98	2.09	3.21	17.00	13.79
5240	0.30	0.25	0.55	-2.59	11.00	13.59	1.12	0.94	2.06	3.14	17.00	13.86
5260	0.26	0.23	0.49	***-3.12***	11.00	14.12	0.96	0.86	1.83	***2.61***	17.00	14.39
5300	0.24	0.21	0.45	-3.50	11.00	14.50	0.89	0.78	1.67	2.23	17.00	14.77
5320	0.22	0.21	0.43	-3.66	11.00	14.66	0.84	0.77	1.61	2.07	17.00	14.93
5500	0.21	0.22	0.43	-3.64	11.00	14.64	0.79	0.83	1.62	2.09	17.00	14.91
5580	0.20	0.24	0.44	-3.57	11.00	14.57	0.74	0.90	1.65	2.16	17.00	14.84
5700	0.22	0.26	0.48	***-3.16***	11.00	14.16	0.83	0.98	1.81	***2.57***	17.00	14.43
5720	0.20	0.25	0.45	-3.45	11.00	14.45	0.76	0.93	1.69	2.28	17.00	14.72
5745	0.11	0.17	0.28	***-5.49***	30.00	35.49	0.41	0.65	1.06	***0.24***	36.00	35.76
5785	0.11	0.17	0.28	-5.57	30.00	35.57	0.42	0.62	1.04	0.16	36.00	35.84
5825	0.11	0.16	0.26	-5.78	30.00	35.78	0.40	0.59	0.99	-0.05	36.00	36.05

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.00	0.00	-16.29	1.56	9.98	5.73	-4.75	0.98	-16.65	1.57	9.95	5.73	-5.13	0.60
5220	0.00	0.00	-16.80	1.57	9.98	5.73	-5.25	0.48	-17.36	1.57	9.95	5.73	-5.84	-0.11
5240	0.00	0.00	-16.75	1.53	9.98	5.73	-5.24	0.49	-17.49	1.55	9.95	5.73	-5.99	-0.26
5260	0.00	0.00	-17.44	1.56	9.98	5.73	-5.90	-0.17	-17.88	1.57	9.95	5.73	-6.36	-0.63
5300	0.00	0.00	-17.78	1.56	9.98	5.73	-6.24	-0.51	-18.31	1.57	9.95	5.73	-6.79	-1.06
5320	0.00	0.00	-18.05	1.58	9.98	5.73	-6.49	-0.76	-18.41	1.60	9.95	5.73	-6.86	-1.13
5500	0.00	0.00	-18.43	1.69	9.98	5.73	-6.76	-1.03	-18.20	1.71	9.95	5.73	-6.54	-0.81
5580	0.00	0.00	-18.70	1.70	9.98	5.73	-7.02	-1.29	-17.84	1.71	9.95	5.73	-6.18	-0.45
5700	0.00	0.00	-18.12	1.60	9.98	5.73	-6.54	-0.81	-17.37	1.60	9.95	5.73	-5.82	-0.09
5720	0.00	0.00	-18.52	1.60	9.98	5.73	-6.94	-1.21	-17.59	1.61	9.95	5.73	-6.03	-0.30
5745	0.00	0.27	-21.46	1.57	9.99	5.73	-9.63	-3.90	-19.41	1.58	9.95	5.73	-7.61	-1.88
5785	0.00	0.27	-21.36	1.58	9.99	5.73	-9.53	-3.80	-19.62	1.58	9.96	5.73	-7.81	-2.08
5825	0.00	0.27	-21.60	1.59	9.99	5.73	-9.76	-4.03	-19.82	1.59	9.96	5.73	-8.00	-2.27

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 + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Directional Gain
Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams)
Number of transmit antennas = 2, Number of spatial streams = 1
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

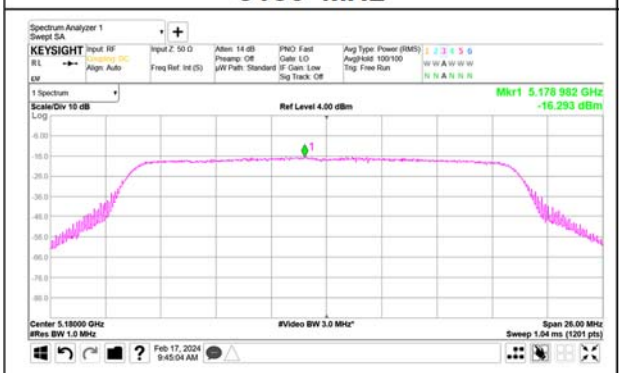
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

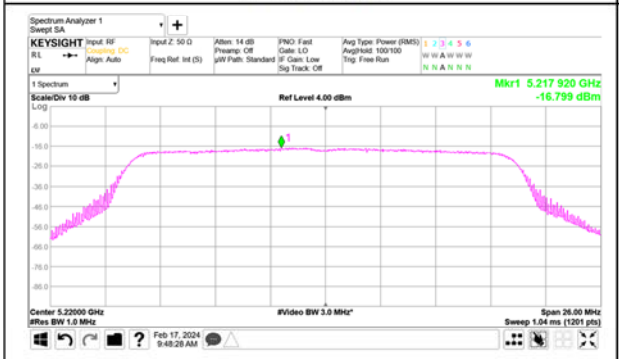
11n-20

Chain 1

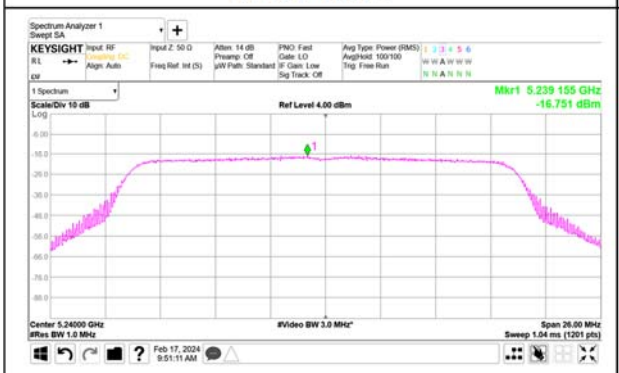
5180 MHz



5220 MHz

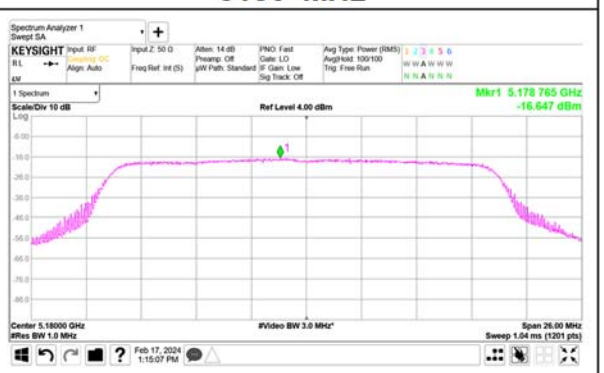


5240 MHz

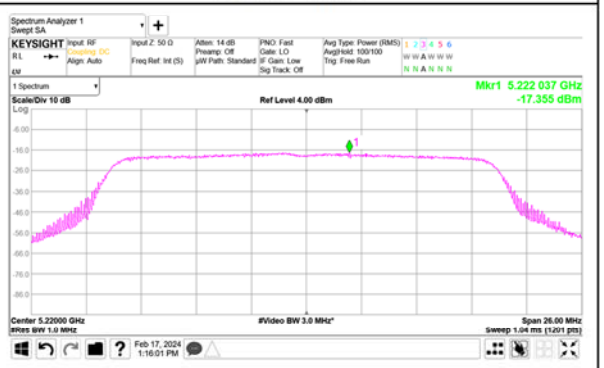


Chain 2

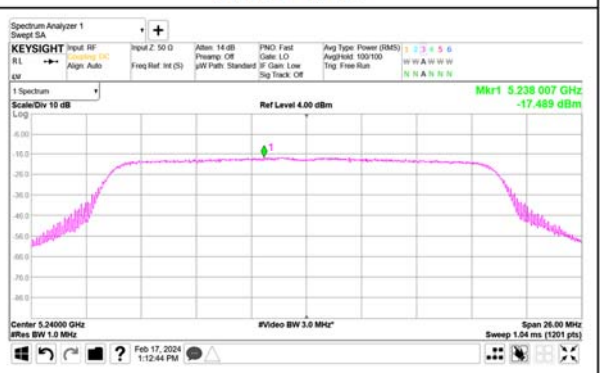
5180 MHz



5220 MHz



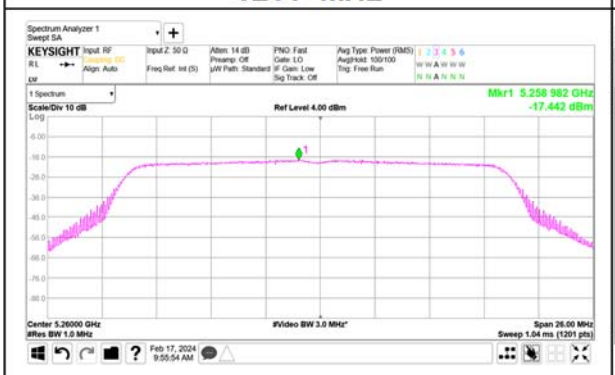
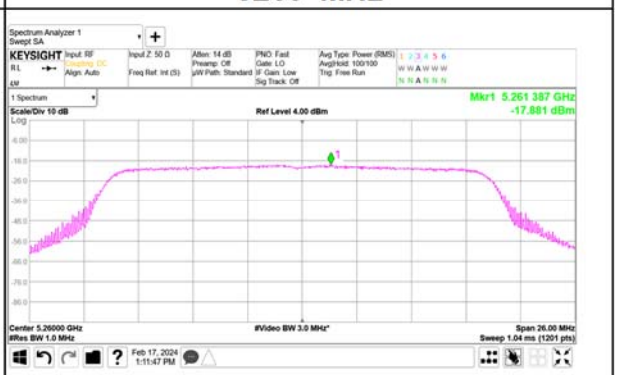
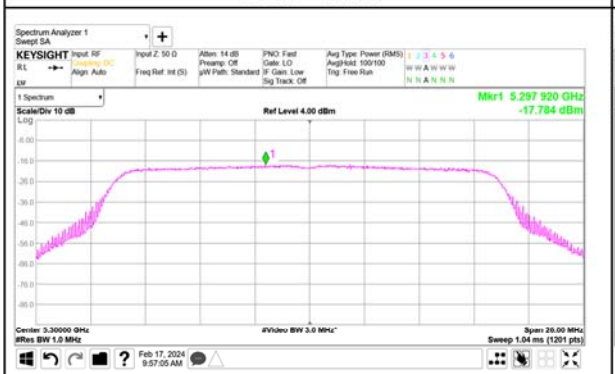
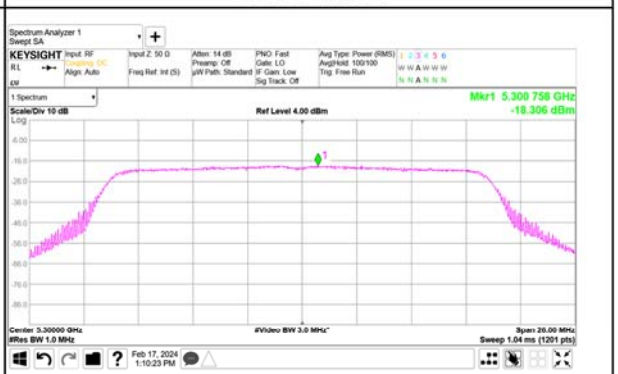
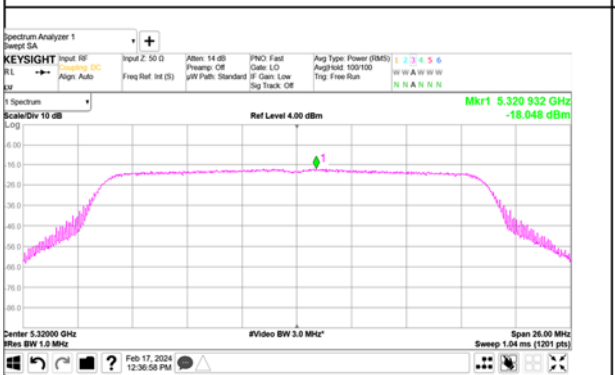
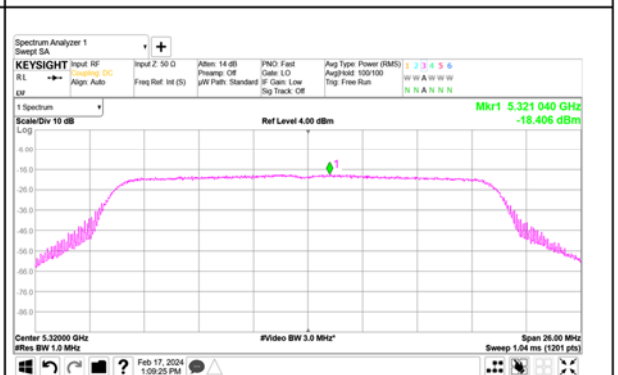
5240 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

11n-20

Chain 1	Chain 2
5260 MHz	**5260 MHz**
	
5300 MHz	**5300 MHz**
	
5320 MHz	**5320 MHz**
	

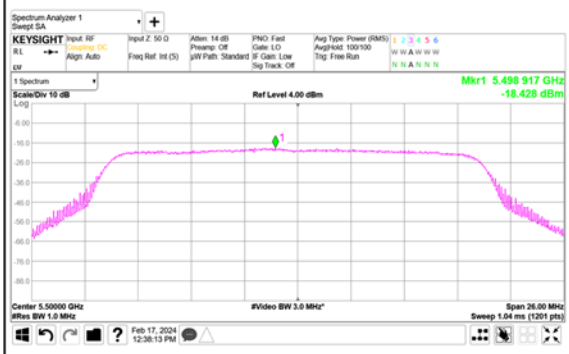
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

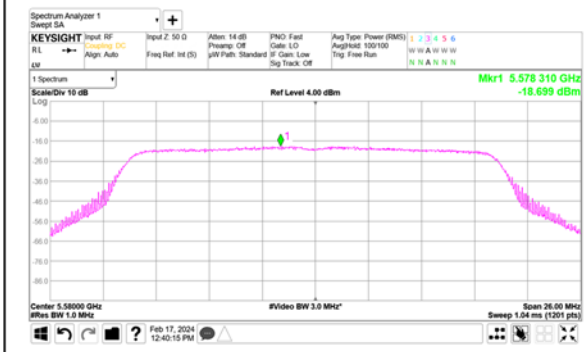
11n-20

Chain 1

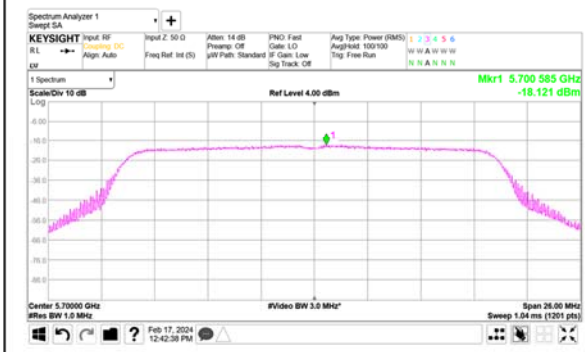
5500 MHz



5580 MHz

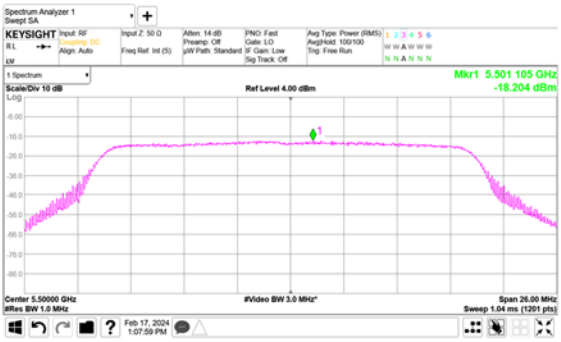


5700 MHz

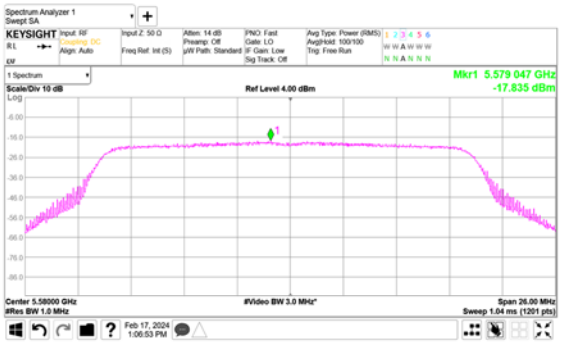


Chain 2

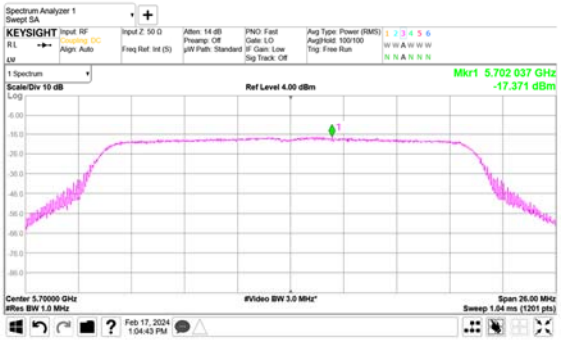
5500 MHz



5580 MHz



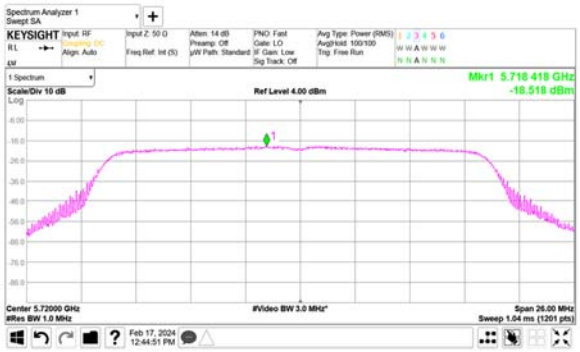
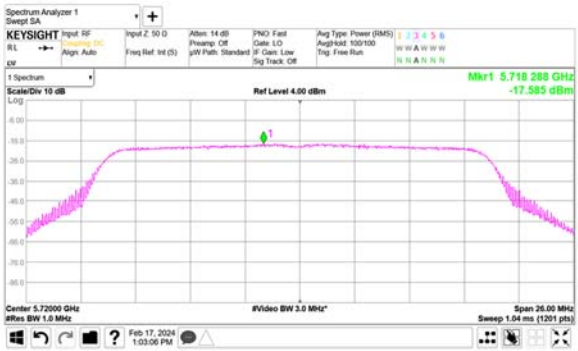
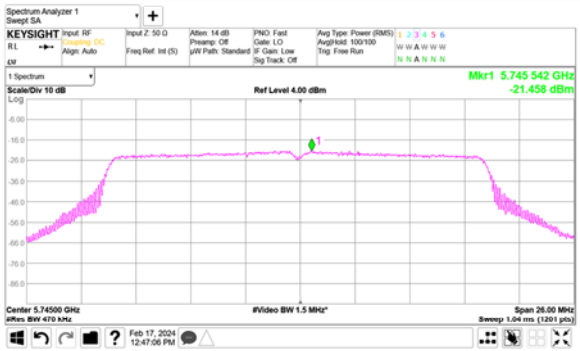
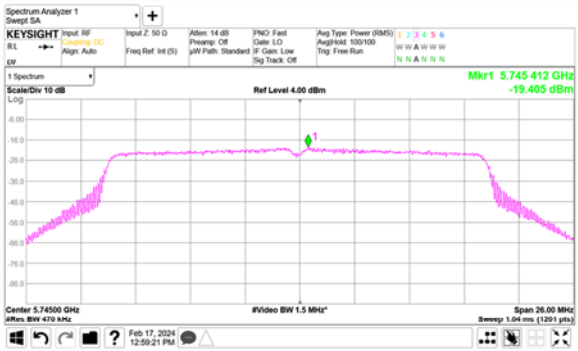
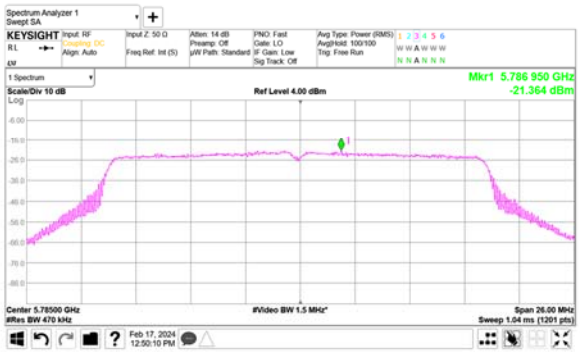
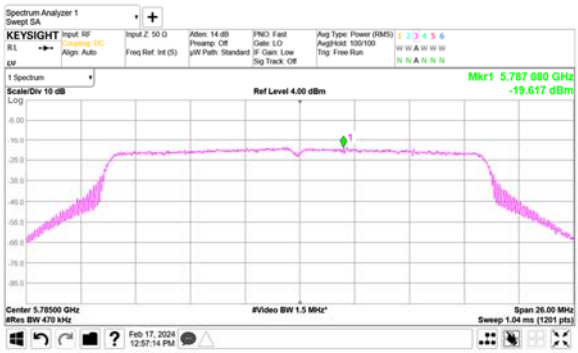
5700 MHz



Maximum Power Spectral Density

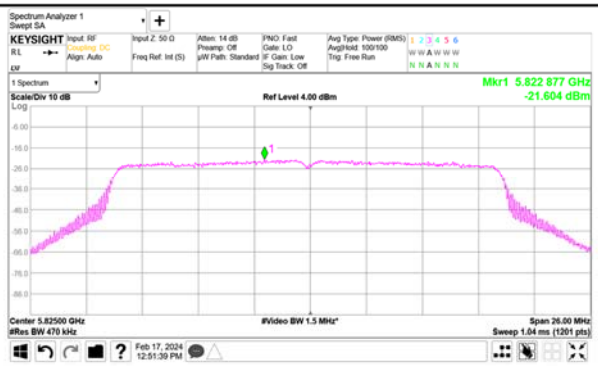
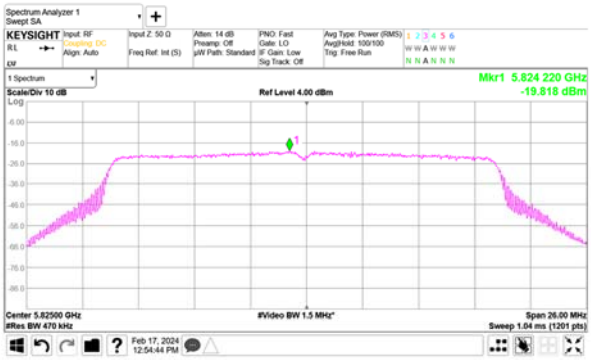
Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

11n-20

Chain 1	Chain 2
5720 MHz	5720 MHz
	
5745 MHz	5745 MHz
	
5785 MHz	5785 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 (CDD)

11n-20	
Chain 1	Chain 2
5825 MHz	5825 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-20 (CDD)

Chain 1+2

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	0.12	0.12	0.24	***-6.12***	11.00	17.12	0.46	0.46	0.91	***-0.39***	17.00	17.39
5220	0.10	0.11	0.21	-6.79	11.00	17.79	0.38	0.40	0.78	-1.06	17.00	18.06
5240	0.09	0.11	0.20	-6.91	11.00	17.91	0.35	0.41	0.76	-1.18	17.00	18.18
5260	0.09	0.10	0.19	***-7.29***	11.00	18.29	0.32	0.37	0.70	***-1.56***	17.00	18.56
5300	0.07	0.10	0.17	-7.77	11.00	18.77	0.25	0.37	0.63	-2.04	17.00	19.04
5320	0.06	0.09	0.15	-8.16	11.00	19.16	0.24	0.33	0.57	-2.43	17.00	19.43
5500	0.06	0.08	0.14	-8.43	11.00	19.43	0.23	0.31	0.54	-2.70	17.00	19.70
5580	0.08	0.09	0.18	-7.52	11.00	18.52	0.31	0.35	0.66	-1.79	17.00	18.79
5700	0.11	0.12	0.23	***-6.44***	11.00	17.44	0.41	0.44	0.85	***-0.71***	17.00	17.71
5720	0.10	0.11	0.21	-6.73	11.00	17.73	0.39	0.40	0.79	-1.00	17.00	18.00
5745	0.06	0.05	0.11	-9.75	30.00	39.75	0.21	0.19	0.40	-4.02	36.00	40.02
5785	0.06	0.05	0.11	-9.59	30.00	39.59	0.21	0.20	0.41	-3.86	36.00	39.86
5825	0.06	0.05	0.12	***-9.36***	30.00	39.36	0.24	0.20	0.43	***-3.63***	36.00	39.63

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.00	0.00	-20.69	1.56	9.98	5.73	-9.15	-3.42	-20.63	1.57	9.95	5.73	-9.11	-3.38
5220	0.00	0.00	-21.48	1.57	9.98	5.73	-9.93	-4.20	-21.19	1.57	9.95	5.73	-9.67	-3.94
5240	0.00	0.00	-21.83	1.53	9.98	5.73	-10.32	-4.59	-21.06	1.55	9.95	5.73	-9.56	-3.83
5260	0.00	0.00	-22.16	1.56	9.98	5.73	-10.62	-4.89	-21.53	1.57	9.95	5.73	-10.01	-4.28
5300	0.00	0.00	-23.23	1.56	9.98	5.73	-11.69	-5.96	-21.55	1.57	9.95	5.73	-10.03	-4.30
5320	0.00	0.00	-23.53	1.58	9.98	5.73	-11.97	-6.24	-22.05	1.60	9.95	5.73	-10.50	-4.77
5500	0.00	0.00	-23.87	1.69	9.98	5.73	-12.20	-6.47	-22.45	1.71	9.95	5.73	-10.79	-5.06
5580	0.00	0.00	-22.46	1.70	9.98	5.73	-10.78	-5.05	-21.95	1.71	9.95	5.73	-10.29	-4.56
5700	0.00	0.00	-21.21	1.60	9.98	5.73	-9.63	-3.90	-20.83	1.60	9.95	5.73	-9.28	-3.55
5720	0.00	0.00	-21.38	1.60	9.98	5.73	-9.80	-4.07	-21.24	1.61	9.95	5.73	-9.68	-3.95
5745	0.00	0.27	-24.31	1.57	9.99	5.73	-12.48	-6.75	-24.86	1.58	9.95	5.73	-13.06	-7.33
5785	0.00	0.27	-24.36	1.58	9.99	5.73	-12.52	-6.79	-24.50	1.58	9.96	5.73	-12.69	-6.96
5825	0.00	0.27	-23.85	1.59	9.99	5.73	-12.00	-6.27	-24.60	1.59	9.96	5.73	-12.78	-7.05

Sample Calculation:

PSD: Power Spectral Density

PSD (Conducted) Result = Reading + Cable Loss + Atten. Loss+ RBW Conversion Factor

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

Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams

Number of transmit antennas = 2, Number of spatial streams = 1

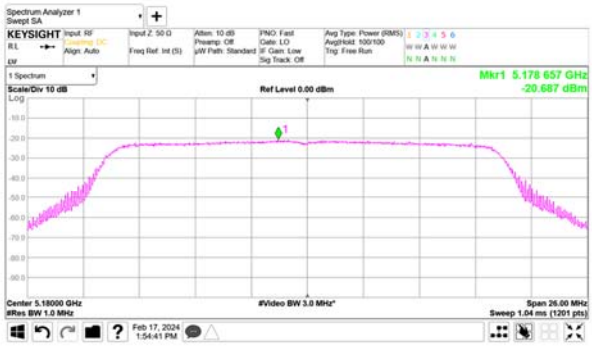
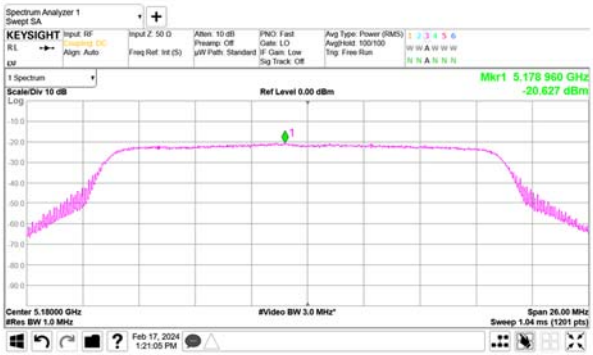
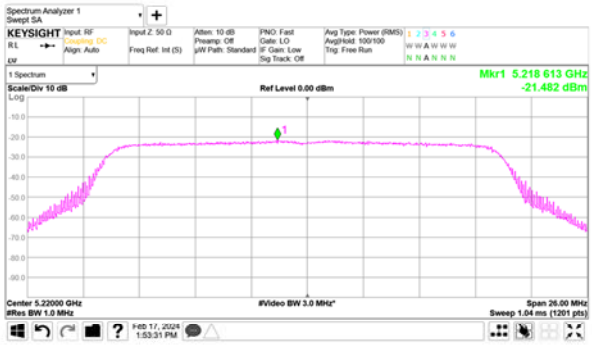
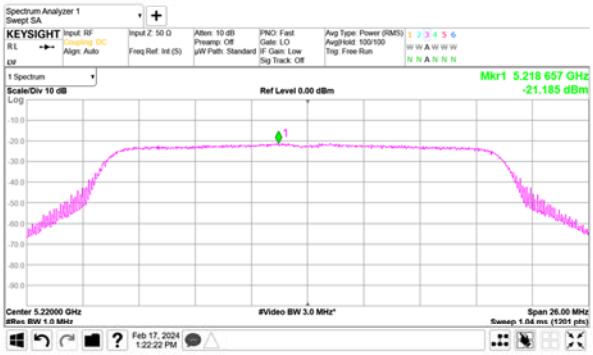
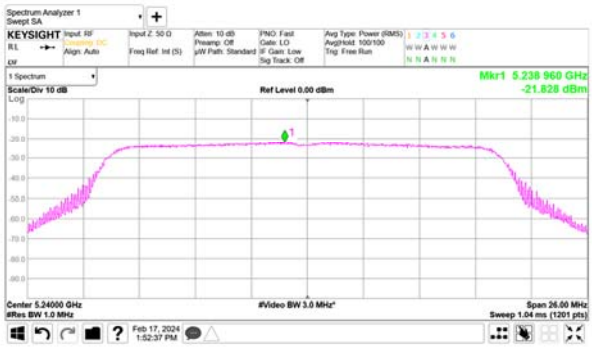
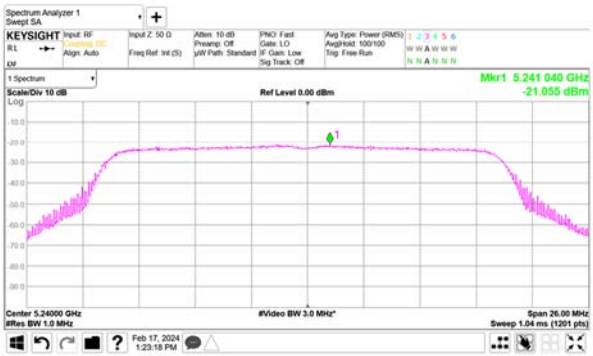
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-20 (CDD)

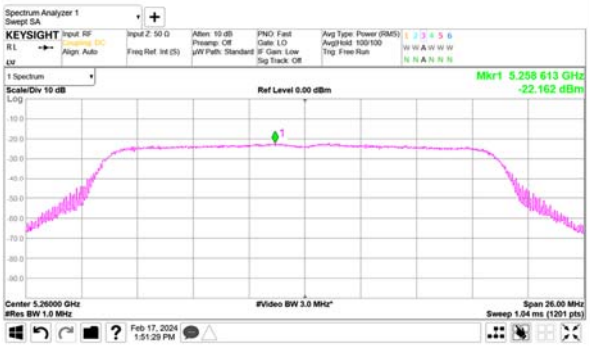
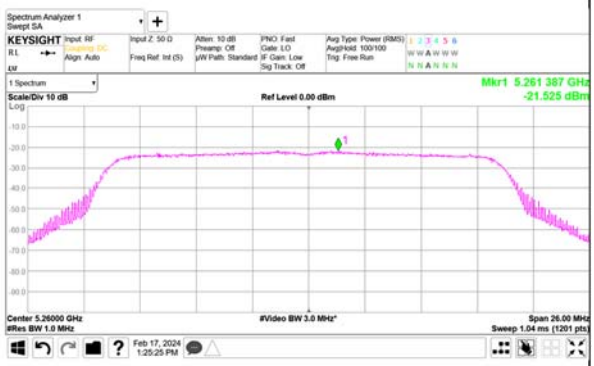
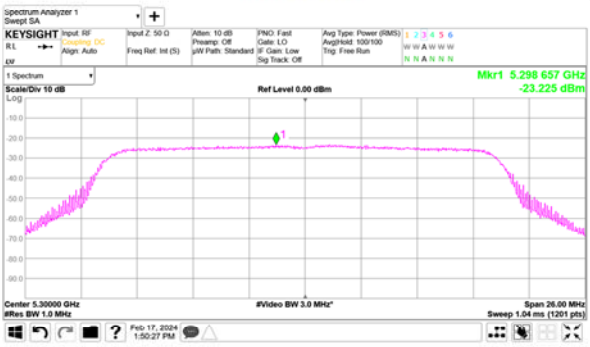
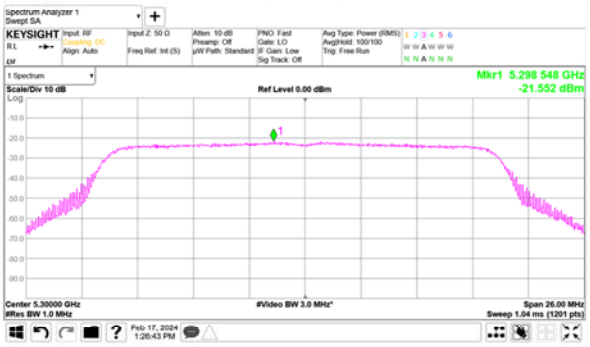
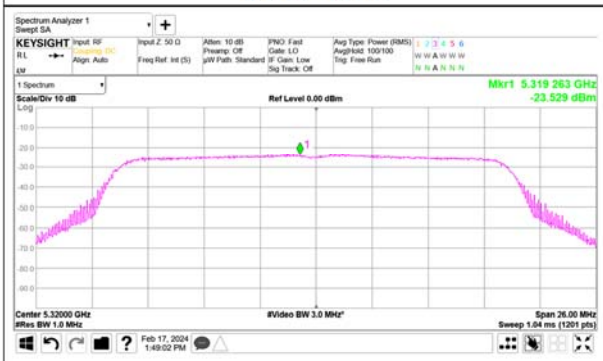
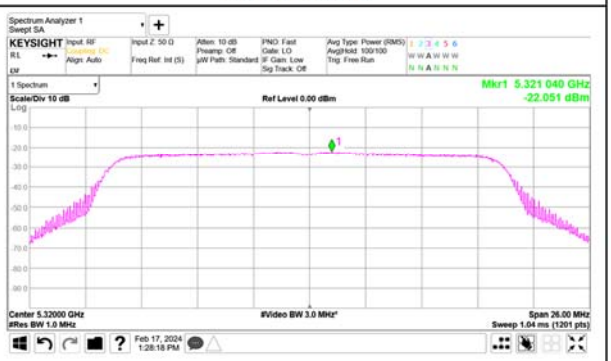
11ac-20

Chain 1	Chain 2
5180 MHz	5180 MHz
	
5220 MHz	5220 MHz
	
5240 MHz	5240 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-20 (CDD)

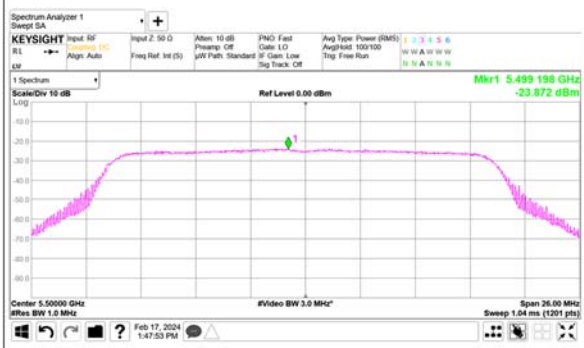
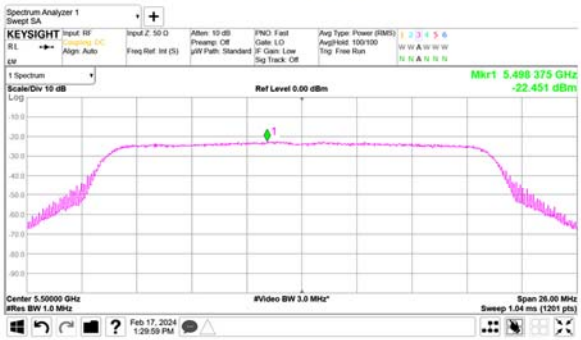
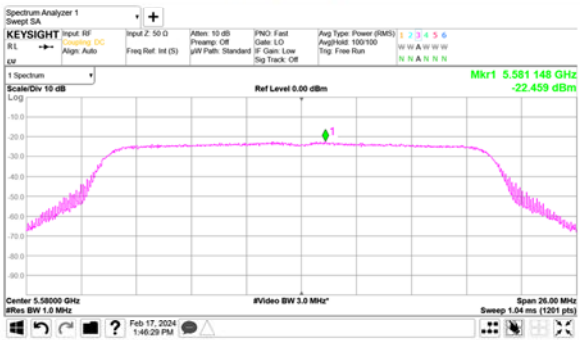
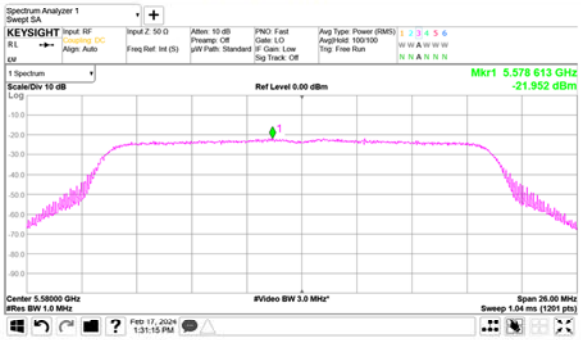
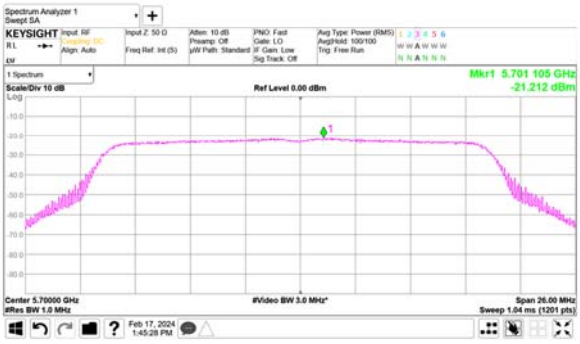
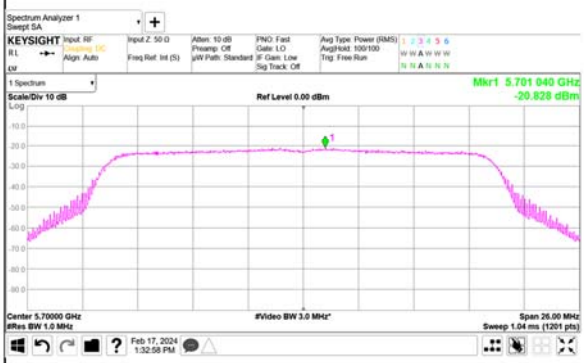
11ac-20

Chain 1	Chain 2
5260 MHz	5260 MHz
	
5300 MHz	5300 MHz
	
5320 MHz	5320 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-20 (CDD)

11ac-20

Chain 1	Chain 2
5500 MHz	5500 MHz
	
5580 MHz	5580 MHz
	
5700 MHz	5700 MHz
	

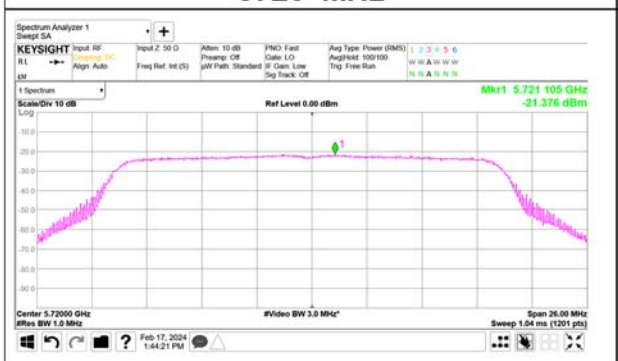
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-20 (CDD)

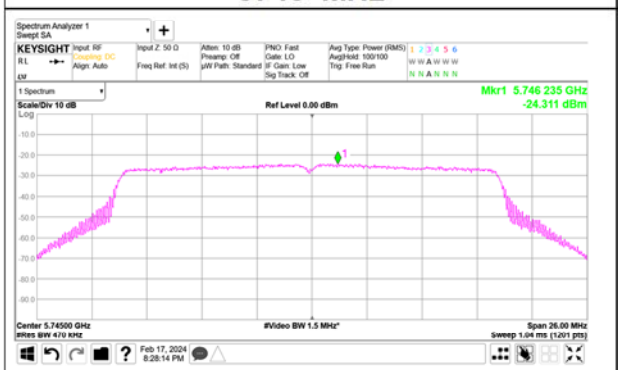
11ac-20

Chain 1

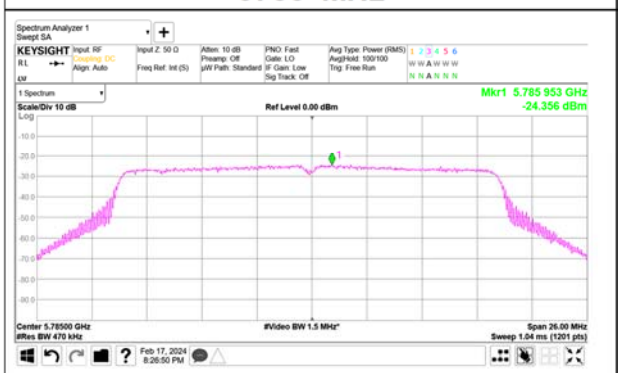
5720 MHz



5745 MHz

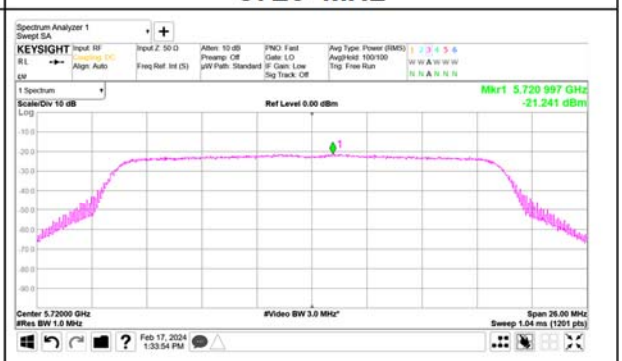


5785 MHz

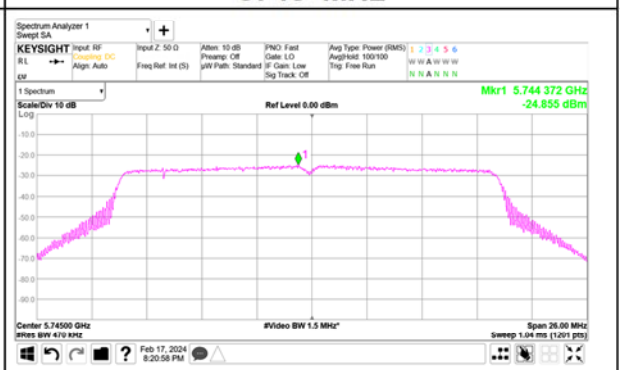


Chain 2

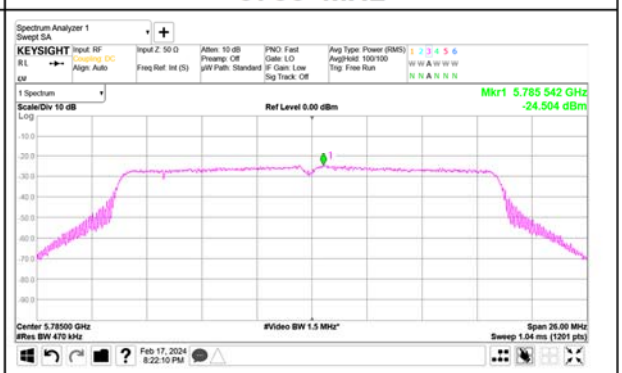
5720 MHz



5745 MHz

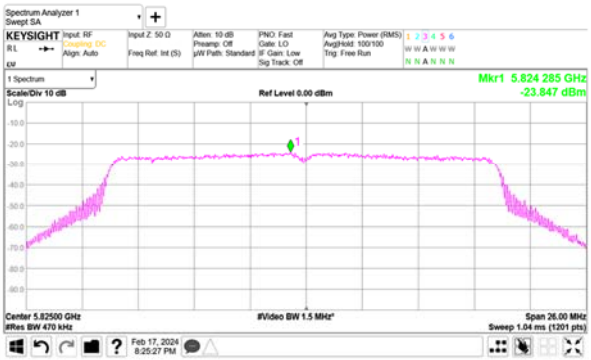
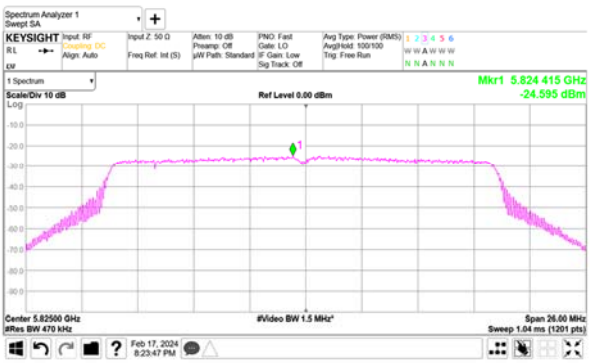


5785 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx

11ac-20	
Chain 1	Chain 2
5825 MHz	5825 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 (CDD)

Chain 1+2 Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.17	0.19	0.36	-4.45	11.00	15.45	0.63	0.71	1.34	1.28	17.00	15.72
5230	0.15	0.17	0.32	-4.93	11.00	15.93	0.55	0.65	1.20	0.80	17.00	16.20
5270	0.12	0.16	0.27	-5.64	11.00	16.64	0.44	0.58	1.02	0.09	17.00	16.91
5310	0.10	0.16	0.26	-5.79	11.00	16.79	0.38	0.60	0.99	-0.06	17.00	17.06
5510	0.12	0.11	0.23	-6.45	11.00	17.45	0.43	0.42	0.85	-0.72	17.00	17.72
5550	0.12	0.09	0.21	-6.80	11.00	17.80	0.43	0.35	0.78	-1.07	17.00	18.07
5670	0.12	0.10	0.21	-6.68	11.00	17.68	0.45	0.36	0.80	-0.95	17.00	17.95
5710	0.13	0.10	0.23	-6.38	11.00	17.38	0.47	0.39	0.86	-0.65	17.00	17.65
5755	0.08	0.06	0.13	-8.83	30.00	38.83	0.28	0.21	0.49	-3.10	36.00	39.10
5795	0.07	0.06	0.13	-8.90	30.00	38.90	0.25	0.23	0.48	-3.17	36.00	39.17

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.00	0.00	-19.28	1.56	9.98	5.73	-7.74	-2.01	-18.72	1.57	9.95	5.73	-7.20	-1.47
5230	0.00	0.00	-19.86	1.57	9.98	5.73	-8.31	-2.58	-19.14	1.58	9.95	5.73	-7.61	-1.88
5270	0.00	0.00	-20.88	1.56	9.98	5.73	-9.34	-3.61	-19.59	1.57	9.95	5.73	-8.07	-2.34
5310	0.00	0.00	-21.43	1.56	9.98	5.73	-9.89	-4.16	-19.45	1.57	9.95	5.73	-7.93	-2.20
5510	0.00	0.00	-21.04	1.69	9.98	5.73	-9.37	-3.64	-21.21	1.71	9.95	5.73	-9.55	-3.82
5550	0.00	0.00	-21.03	1.69	9.98	5.73	-9.36	-3.63	-21.98	1.71	9.95	5.73	-10.32	-4.59
5670	0.00	0.00	-20.86	1.65	9.98	5.73	-9.23	-3.50	-21.82	1.66	9.95	5.73	-10.21	-4.48
5710	0.00	0.00	-20.61	1.65	9.98	5.73	-8.98	-3.25	-21.45	1.66	9.95	5.73	-9.84	-4.11
5755	0.00	0.27	-23.06	1.57	9.99	5.73	-11.23	-5.50	-24.36	1.58	9.95	5.73	-12.56	-6.83
5795	0.00	0.27	-23.54	1.58	9.99	5.73	-11.70	-5.97	-23.94	1.58	9.96	5.73	-12.13	-6.40

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 + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Directional Gain
Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams)
Number of transmit antennas = 2, Number of spatial streams = 1
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

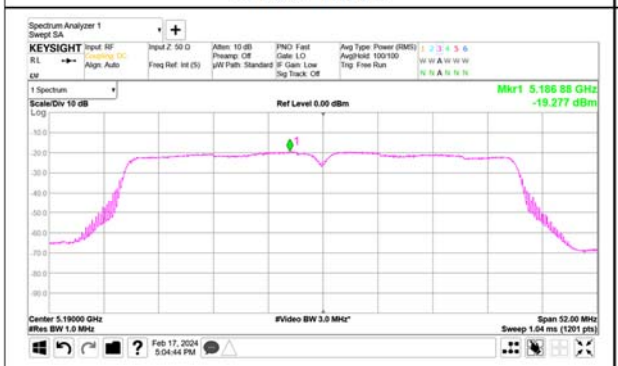
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 (CDD)

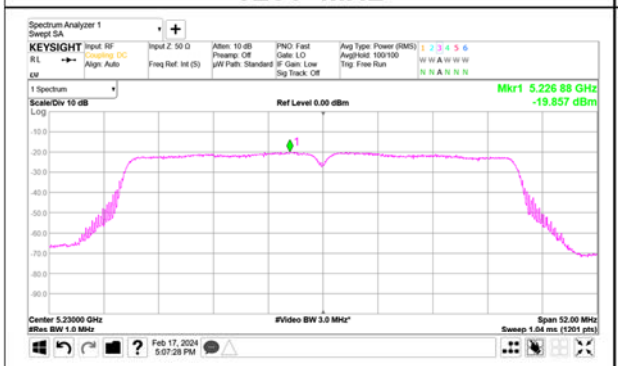
11n-40

Chain 1

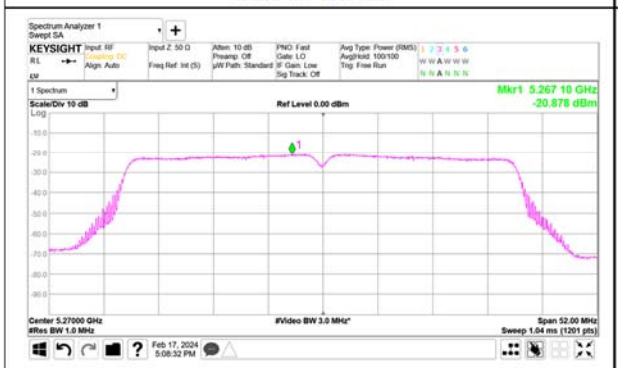
5190 MHz



5230 MHz

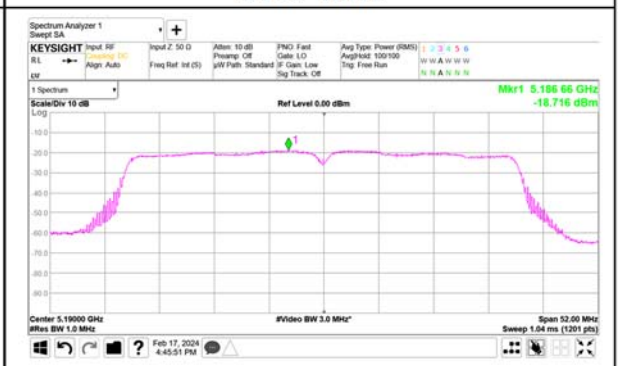


5270 MHz

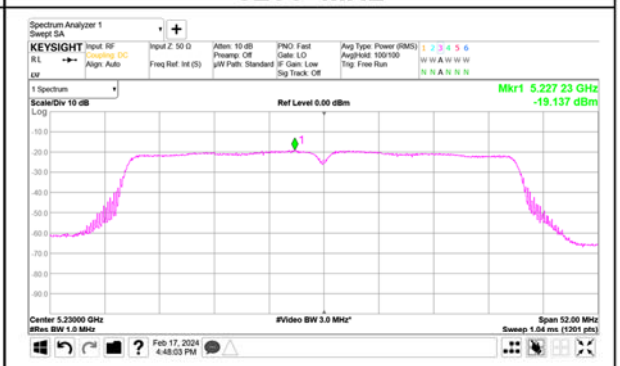


Chain 2

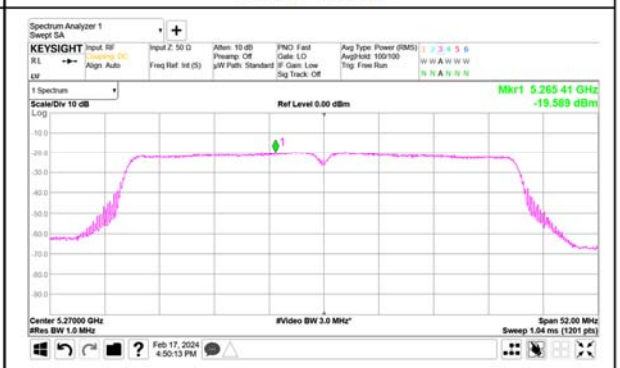
5190 MHz



5230 MHz



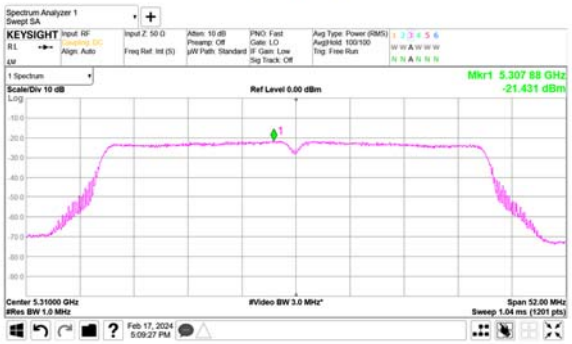
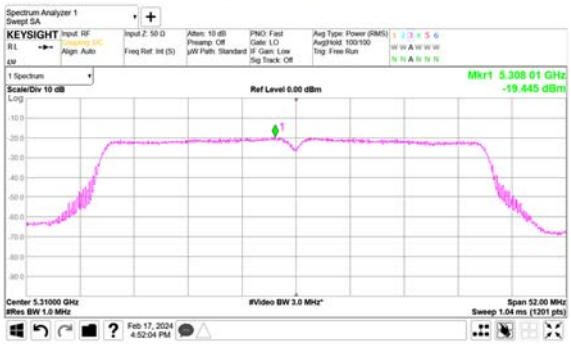
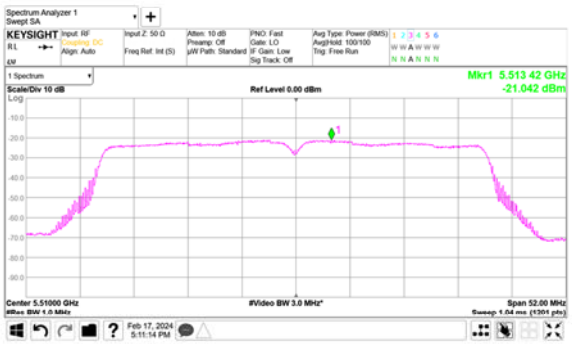
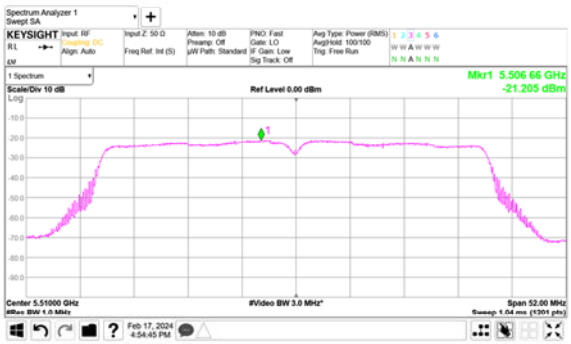
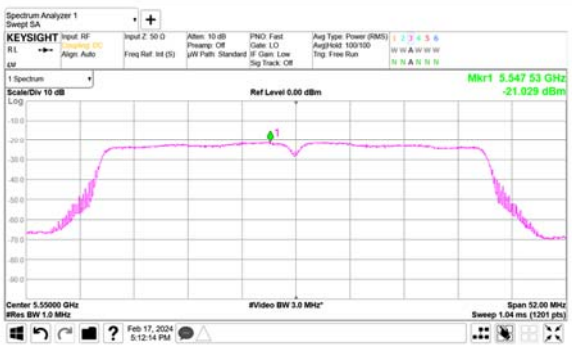
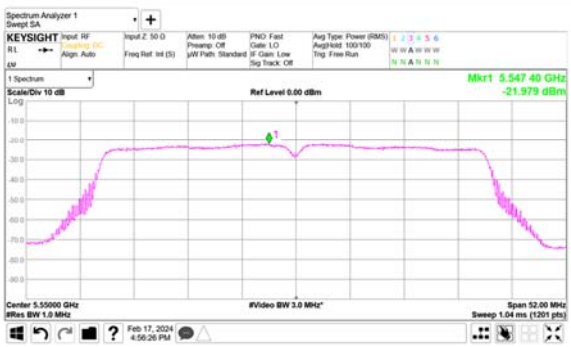
5270 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 (CDD)

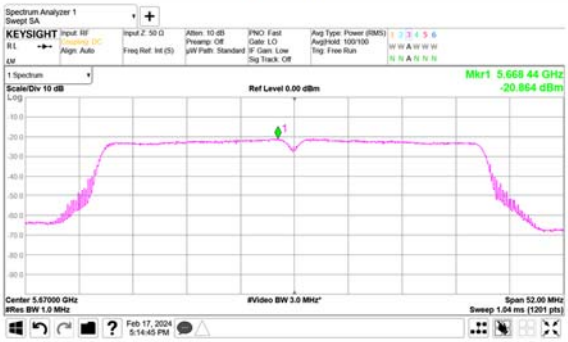
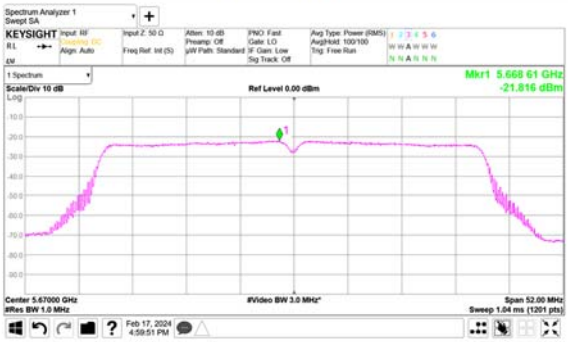
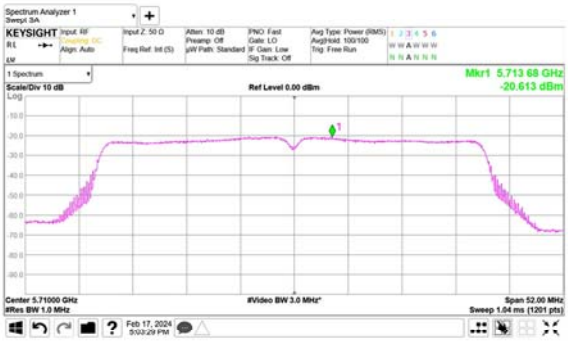
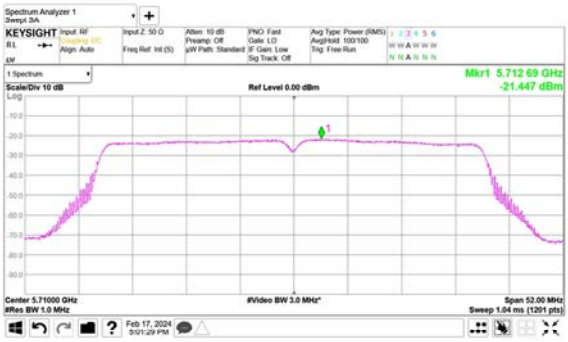
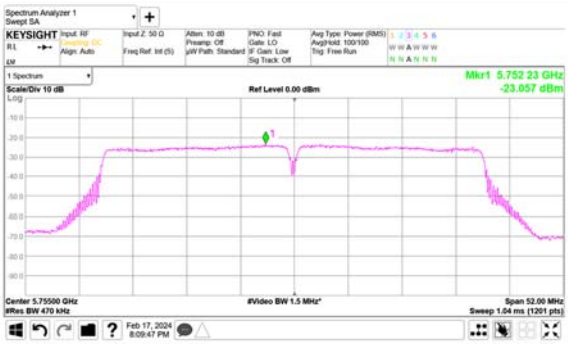
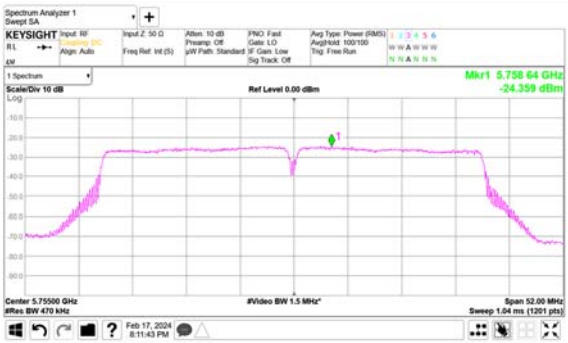
11n-40

Chain 1	Chain 2
5310 MHz	5310 MHz
	
5510 MHz	5510 MHz
	
5550 MHz	5550 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 (CDD)

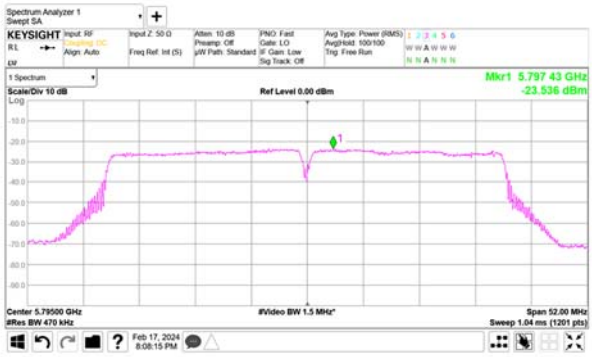
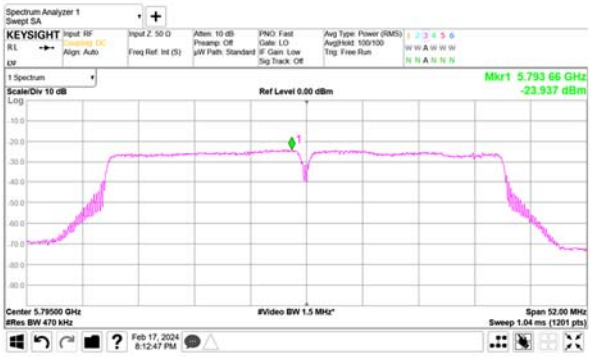
11n-40

Chain 1	Chain 2
5670 MHz	5670 MHz
	
5710 MHz	5710 MHz
	
5755 MHz	5755 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 (CDD)

11n-40

Chain 1	Chain 2
5795 MHz	5795 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-40 (CDD)

Chain 1+2

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.07	0.09	0.16	-7.96	11.00	18.96	0.26	0.34	0.60	-2.23	17.00	19.23
5230	0.06	0.07	0.13	-8.70	11.00	19.70	0.22	0.28	0.50	-2.97	17.00	19.97
5270	0.05	0.07	0.12	-9.38	11.00	20.38	0.19	0.25	0.43	-3.65	17.00	20.65
5310	0.04	0.06	0.10	-9.98	11.00	20.98	0.16	0.22	0.38	-4.25	17.00	21.25
5510	0.05	0.05	0.10	-10.21	11.00	21.21	0.18	0.18	0.36	-4.48	17.00	21.48
5550	0.05	0.04	0.09	-10.53	11.00	21.53	0.19	0.14	0.33	-4.80	17.00	21.80
5670	0.05	0.04	0.09	-10.61	11.00	21.61	0.19	0.14	0.33	-4.88	17.00	21.88
5710	0.05	0.04	0.09	-10.23	11.00	21.23	0.20	0.15	0.36	-4.50	17.00	21.50
5755	0.03	0.02	0.05	-13.01	30.00	43.01	0.10	0.09	0.19	-7.28	36.00	43.28
5795	0.03	0.03	0.05	-12.73	30.00	42.73	0.11	0.09	0.20	-7.00	36.00	43.00

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.00	0.00	-23.09	1.56	9.98	5.73	-11.55	-5.82	-21.98	1.57	9.95	5.73	-10.46	-4.73
5230	0.00	0.00	-23.78	1.57	9.98	5.73	-12.23	-6.50	-22.79	1.58	9.95	5.73	-11.26	-5.53
5270	0.00	0.00	-24.57	1.56	9.98	5.73	-13.03	-7.30	-23.34	1.57	9.95	5.73	-11.82	-6.09
5310	0.00	0.00	-25.24	1.56	9.98	5.73	-13.70	-7.97	-23.91	1.57	9.95	5.73	-12.39	-6.66
5510	0.00	0.00	-24.91	1.69	9.98	5.73	-13.24	-7.51	-24.86	1.71	9.95	5.73	-13.20	-7.47
5550	0.00	0.00	-24.61	1.69	9.98	5.73	-12.94	-7.21	-25.89	1.71	9.95	5.73	-14.23	-8.50
5670	0.00	0.00	-24.68	1.65	9.98	5.73	-13.05	-7.32	-25.89	1.66	9.95	5.73	-14.28	-8.55
5710	0.00	0.00	-24.25	1.65	9.98	5.73	-12.62	-6.89	-25.56	1.66	9.95	5.73	-13.95	-8.22
5755	0.00	0.27	-27.47	1.57	9.99	5.73	-15.64	-9.91	-28.23	1.58	9.95	5.73	-16.43	-10.70
5795	0.00	0.27	-27.33	1.58	9.99	5.73	-15.50	-9.77	-27.80	1.58	9.96	5.73	-15.99	-10.26

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 + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Directional Gain
Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams)
Number of transmit antennas = 2, Number of spatial streams = 1
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

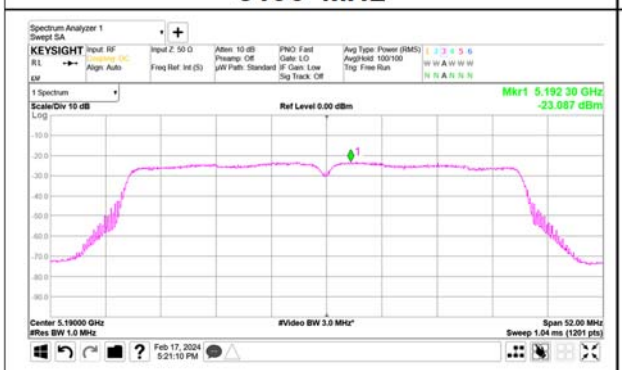
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-40 (CDD)

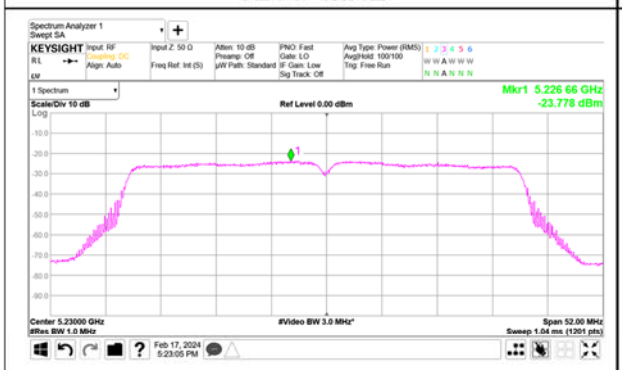
11ac-40

Chain 1

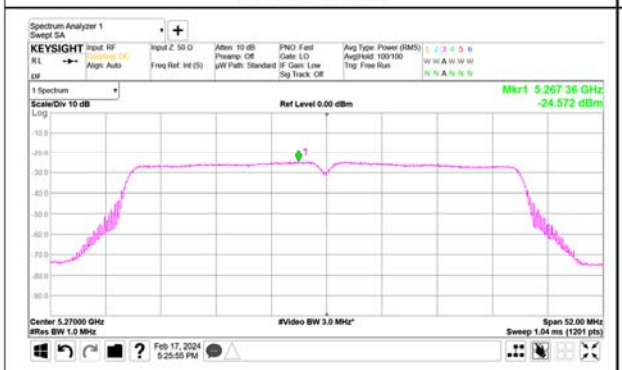
5190 MHz



5230 MHz

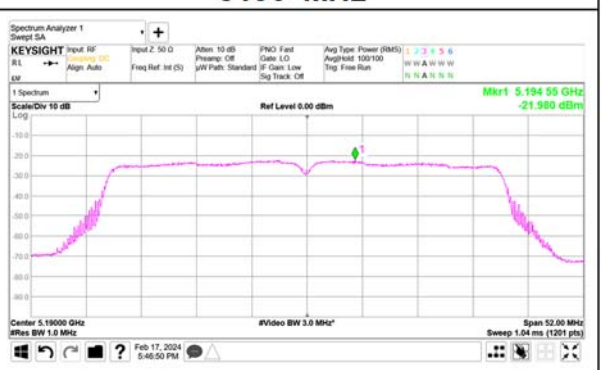


5270 MHz

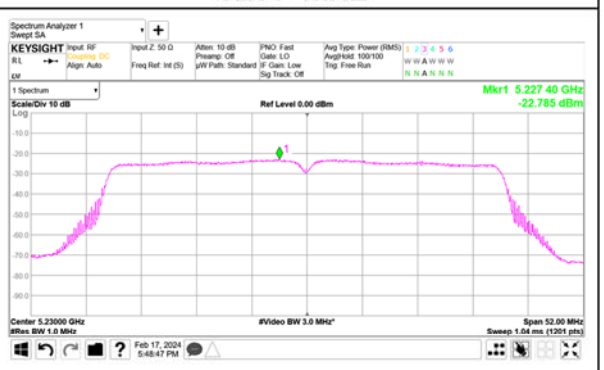


Chain 2

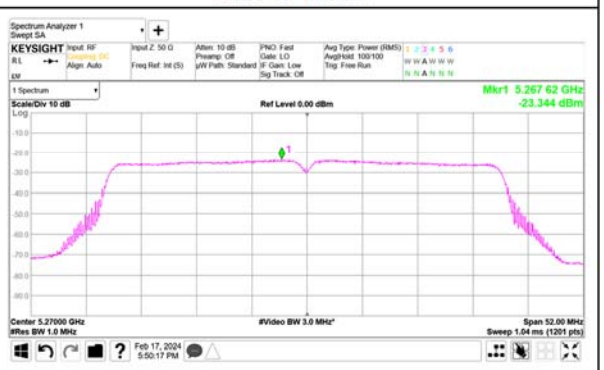
5190 MHz



5230 MHz



5270 MHz



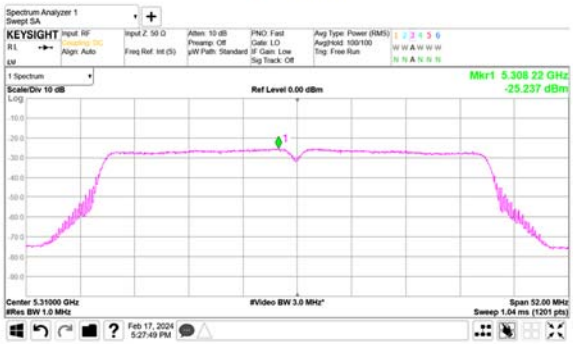
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-40 (CDD)

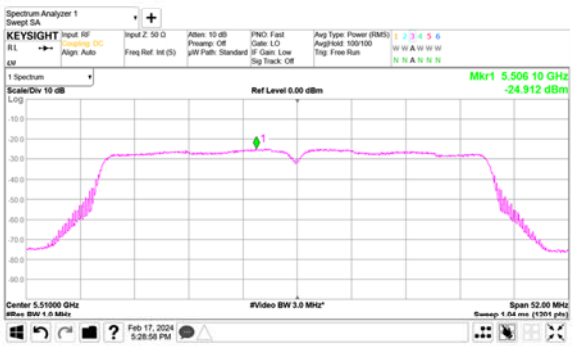
11ac-40

Chain 1

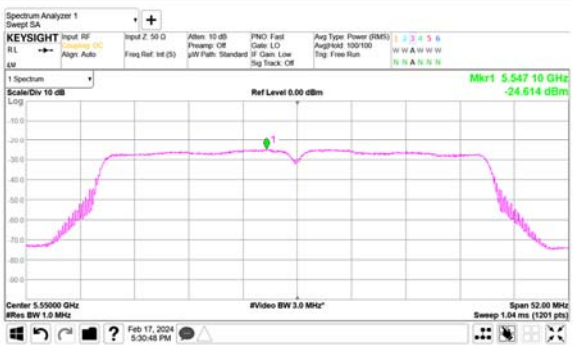
5310 MHz



5510 MHz

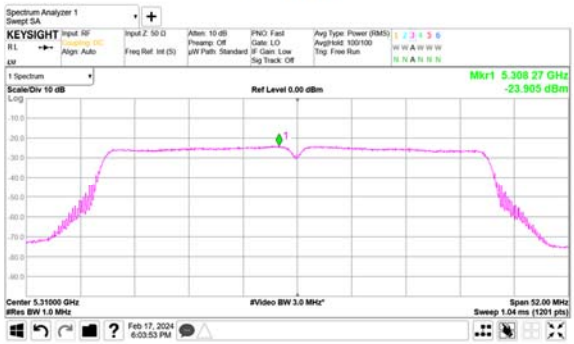


5550 MHz

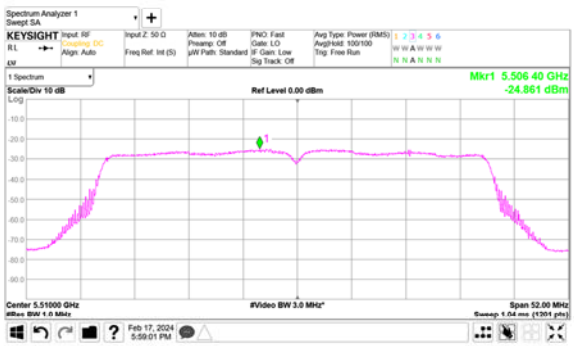


Chain 2

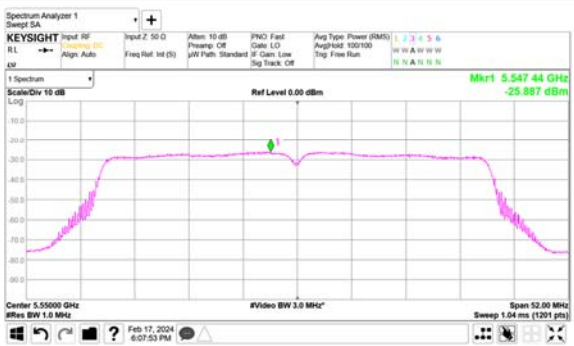
5310 MHz



5510 MHz



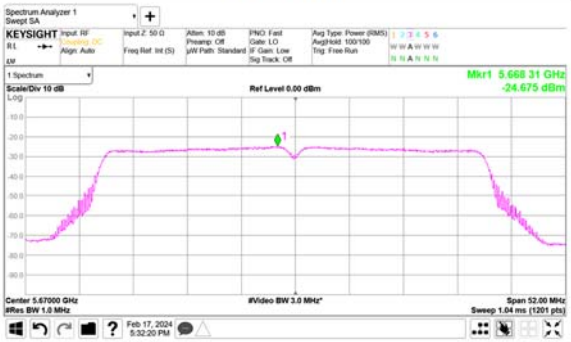
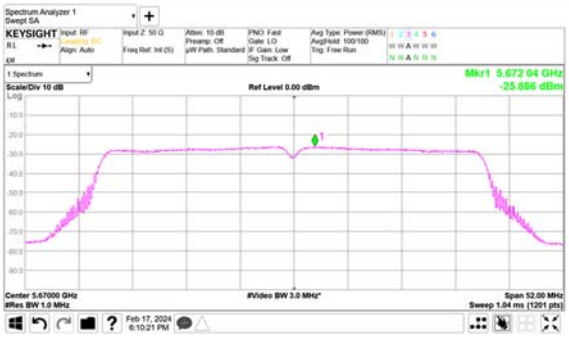
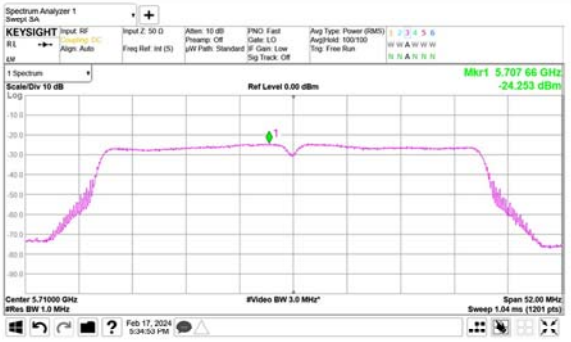
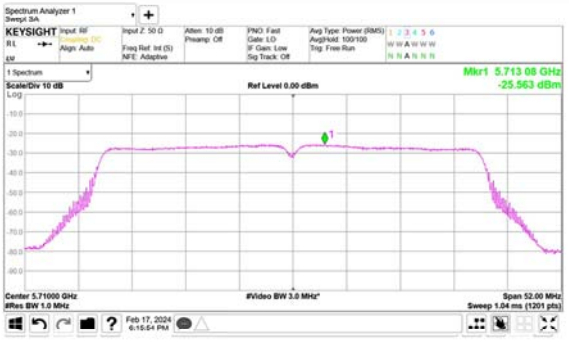
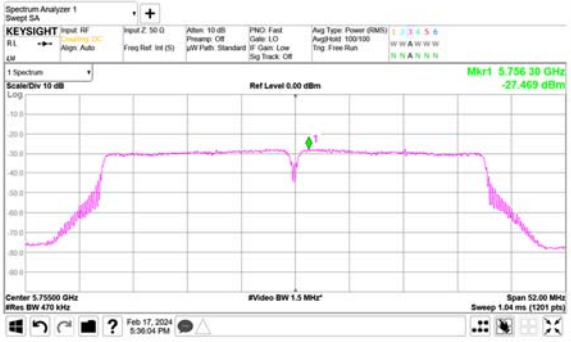
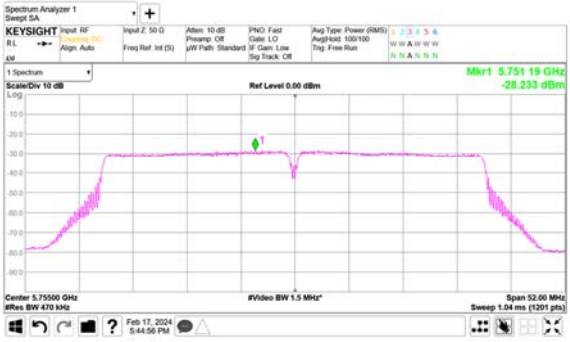
5550 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-40 (CDD)

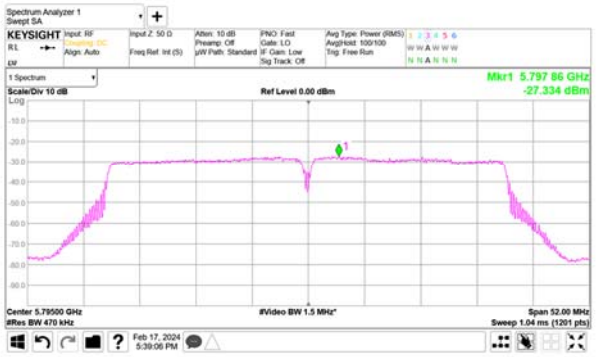
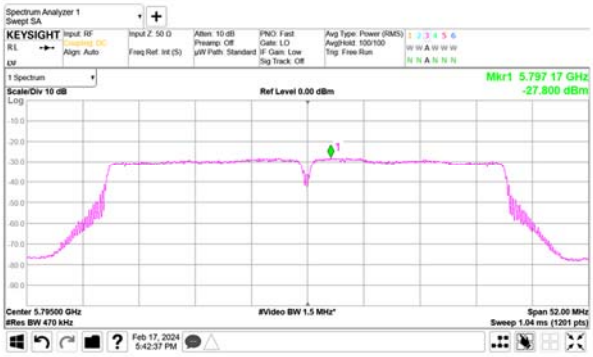
11ac-40

Chain 1	Chain 2
5670 MHz	5670 MHz
	
5710 MHz	5710 MHz
	
5755 MHz	5755 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-40 (CDD)

11ac-40

Chain 1	Chain 2
5795 MHz	5795 MHz
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-80 (CDD)

Chain 1+2

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Chain 1	Chain 2	Sum				Chain 1	Chain 2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5210	0.03	0.03	0.06	-11.88	11.00	22.88	0.11	0.13	0.24	-6.15	17.00	23.15
5290	0.02	0.03	0.05	-13.17	11.00	24.17	0.07	0.11	0.18	-7.44	17.00	24.44
5530	0.02	0.02	0.04	-13.80	11.00	24.80	0.08	0.07	0.16	-8.07	17.00	25.07
5610	0.02	0.02	0.04	-14.26	11.00	25.26	0.08	0.06	0.14	-8.53	17.00	25.53
5690	0.02	0.02	0.04	-13.93	11.00	24.93	0.09	0.06	0.15	-8.20	17.00	25.20
5775	0.01	0.01	0.02	-16.46	30.00	46.46	0.04	0.04	0.08	-10.73	36.00	46.73

	*1)		Chain 1						Chain 2					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Directional Gain	PSD Result Cond.	PSD Result e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5210	0.00	0.00	-26.76	1.57	9.98	5.73	-15.21	-9.48	-26.11	1.57	9.95	5.73	-14.59	-8.86
5290	0.00	0.00	-28.57	1.56	9.98	5.73	-17.03	-11.30	-26.99	1.57	9.95	5.73	-15.47	-9.74
5530	0.00	0.00	-28.15	1.69	9.98	5.73	-16.48	-10.75	-28.83	1.71	9.95	5.73	-17.17	-11.44
5610	0.00	0.00	-28.29	1.64	9.98	5.73	-16.67	-10.94	-29.57	1.65	9.95	5.73	-17.97	-12.24
5690	0.00	0.00	-27.91	1.65	9.98	5.73	-16.28	-10.55	-29.33	1.66	9.95	5.73	-17.72	-11.99
5775	0.00	0.27	-31.11	1.58	9.99	5.73	-19.27	-13.54	-31.50	1.58	9.96	5.73	-19.69	-13.96

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Directional Gain
Directional Gain = Antenna Gain + Array Gain, Array Gain = 10log(Number of transmit antennas / Number of spatial streams)
Number of transmit antennas = 2, Number of spatial streams = 1
Antenna Gain = Maximum Antenna gain

*1) Power density was measured with using the gate function of spectrum analyzer.

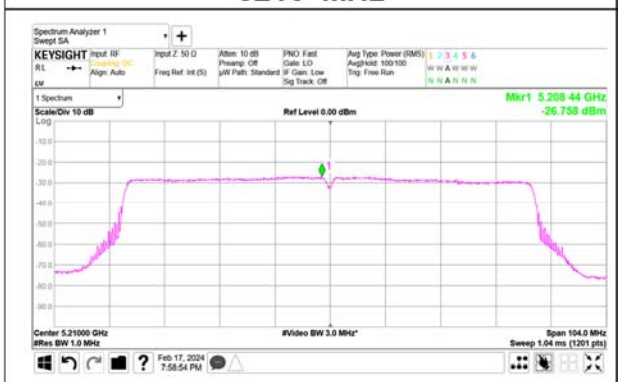
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-80 (CDD)

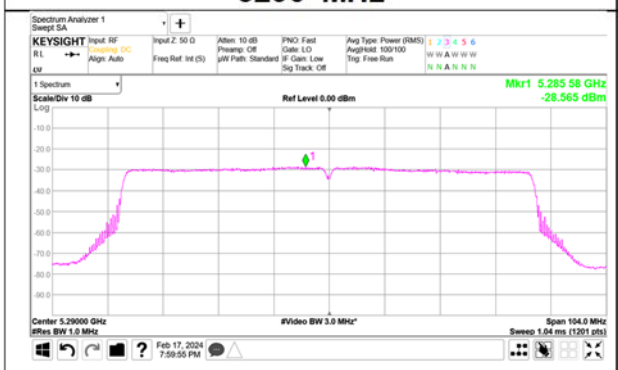
11ac-80

Chain 1

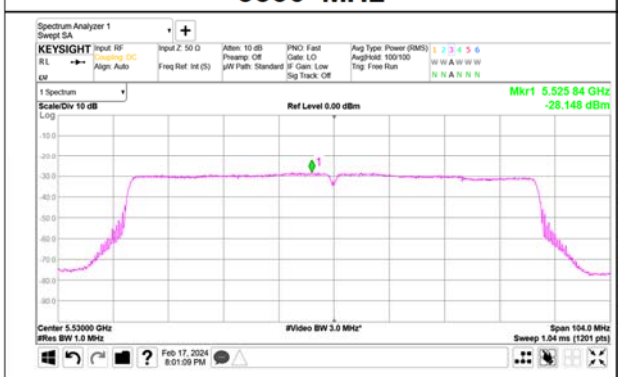
5210 MHz



5290 MHz

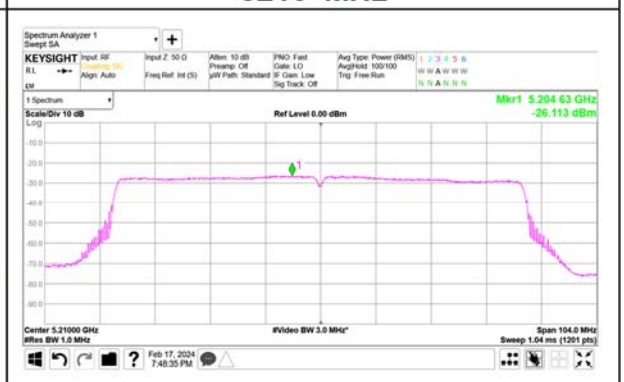


5530 MHz

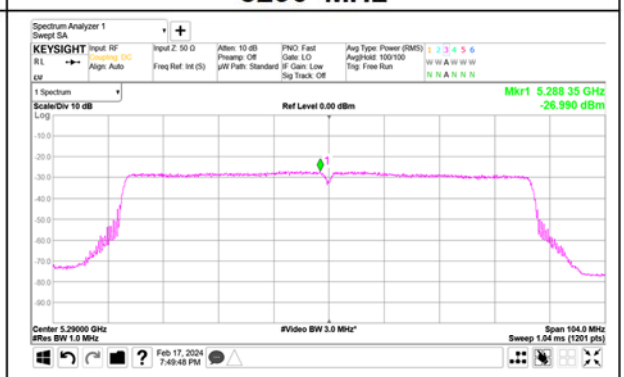


Chain 2

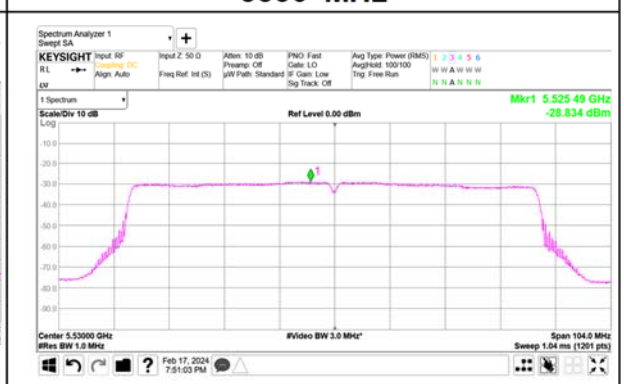
5210 MHz



5290 MHz



5530 MHz



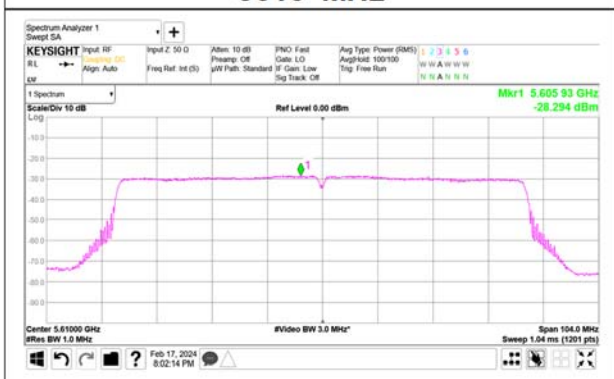
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.2 Measurement Room
Date	February 17, 2024
Temperature / Humidity	23 deg. C / 30 % RH
Engineer	Hiromasa Sato
Mode	Tx 11ac-80 (CDD)

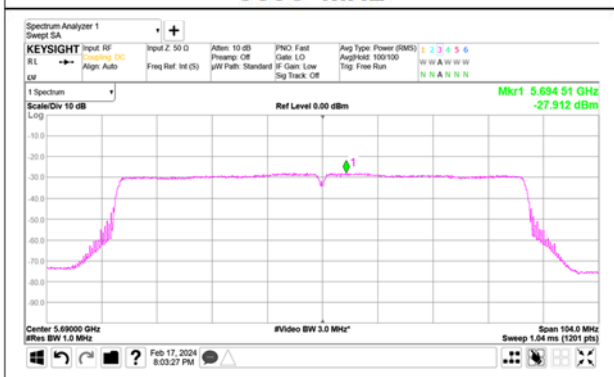
11ac-80

Chain 1

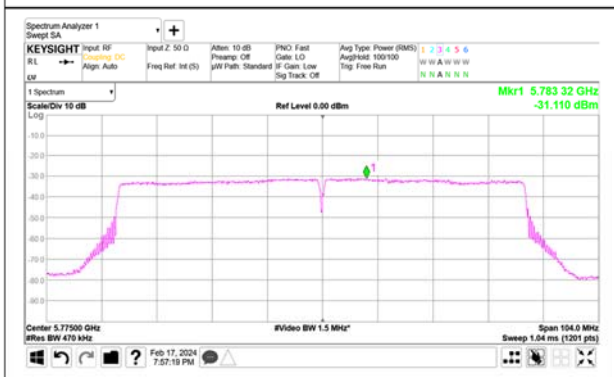
5610 MHz



5690 MHz

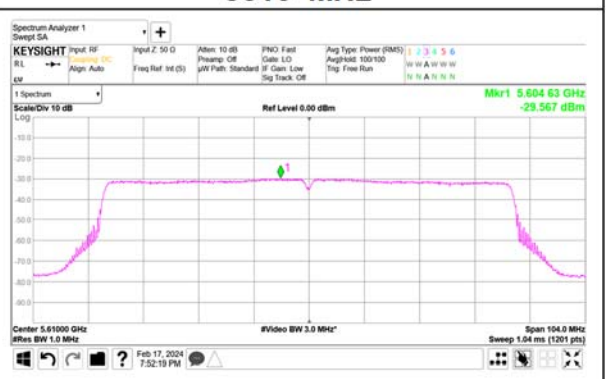


5775 MHz

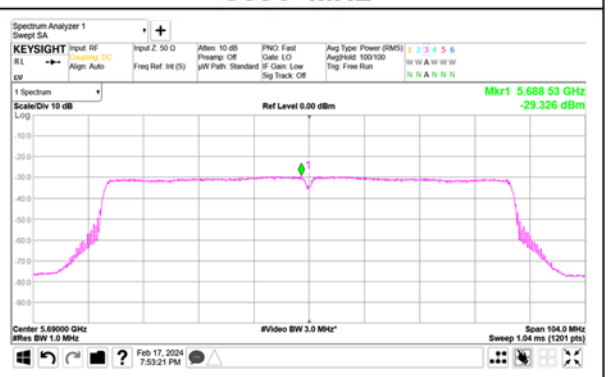


Chain 2

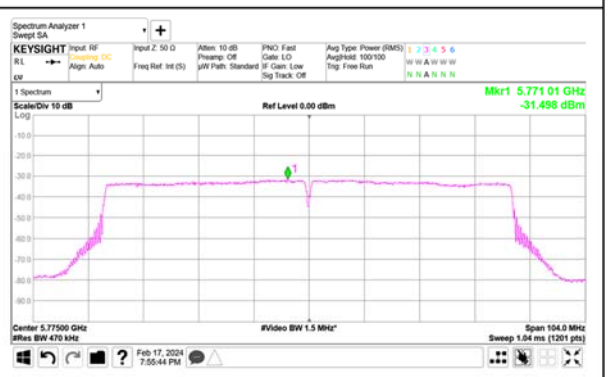
5610 MHz



5690 MHz



5775 MHz

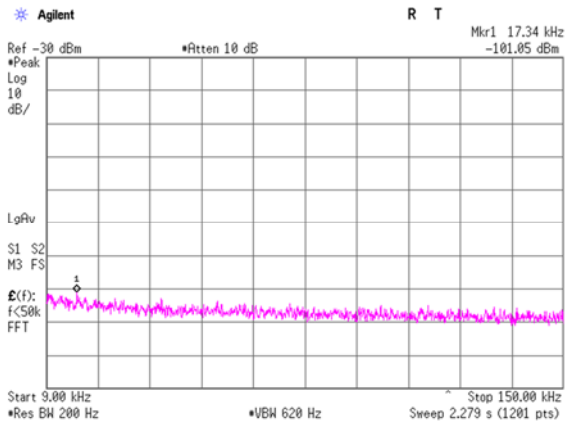


Conducted Spurious Emission

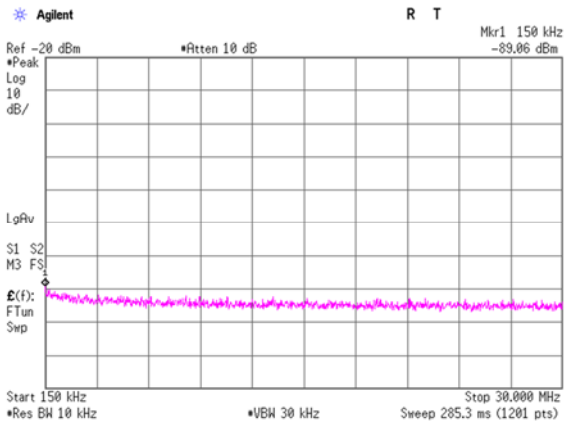
Test place	Shonan EMC Lab. No.1 Wireless Shielded Room
Date	February 7, 2024
Temperature / Humidity	24 deg. C / 26 % RH
Engineer	Masahide Ozaki
Mode	Tx 11a (SISO) 5180 MHz

Tx, 11a (SISO), 5180 MHz, antenna; Chain 2

9 kHz - 150 kHz



150 kHz - 30 MHz



FREQ [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator Loss [dB]	Antenna Gain	N (Number of output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field Strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]
17.3	-101.05	0.02	9.90	2.71	1	-88.42	300.00	6.00	-27.17	42.80	69.97
150.0	-89.06	0.02	9.90	2.71	1	-76.43	300.00	6.00	-15.18	24.00	39.18

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

EIRP [dBm] = Reading [dBm] + Cable Loss [dB] + Attenuator Loss [dB] + Antenna Gain [dBi] + 10 x log (N)

N: Number of output port

APPENDIX 2: Test Instruments

Test Equipment

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
AT	145095	Digital Tester	SANWA	PC500	7019224	2023/05/25	12
AT	145800	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY48250106	2023/03/01	12
AT	145801	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY48250152	2023/09/23	12
AT	146268	Power Meter	Raditeq (Formerly DARE!! Instruments)	RPR3006W	15I00041SNO73	2023/05/30	12
AT	146269	Power Meter	Raditeq (Formerly DARE!! Instruments)	RPR3006W	15I00041SNO74	2023/05/30	12
AT	146362	Thermo-Hygrometer	CUSTOM. Inc	CTH-190	K-07	2023/08/03	12
AT	191840	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2023/08/03	12
AT	197395	Microwave cable	RS Pro	R-132G7210 100CO	-	2023/04/06	12
AT	197396	Microwave cable	RS Pro	R-132G7210 100CO	-	2023/04/12	12
AT	204924	Terminator	Weinschel - API Technologies Corp	M1459A	110107	2024/02/14	12
AT	235639	DIGITAL MULTIMETER	HIOKI E.E. CORPORATION	DT4261	230313156	2023/05/26	12
AT	235739	Thermo-Hygrometer	CUSTOM. Inc	CTH-230	-	2023/04/26	12
AT	236376	Microwave cable	RS Pro	R-132G7210 100CO	-	2023/04/27	12
AT	236377	Microwave cable	RS Pro	R-132G7210 100CO	-	2023/04/27	12
AT	239651	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	2001219/2	2023/08/22	12
AT	239652	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	2001220/2	2023/08/22	12
AT	240499	Spectrum Analyzer	Keysight Technologies Inc	N9020B	MY59050557	2023/10/21	12
AT	242067	Attenuator	Weinschel Corp.	54A-10	120523	2023/11/02	12
AT	242068	Attenuator	Weinschel Corp.	54A-10	120524	2023/11/02	12

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

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

Test item:
AT: Antenna Terminal Conducted test