U-NII-2C

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	100/5500	20.49	20.66	24.00	PASS
	120/5600	21.13	21.30	24.00	PASS
	140/5700	19.25	19.42	24.00	PASS
	144/5720	18.28	18.45	23.98	PASS
802.11n HT20	100/5500	19.64	20.61	24.00	PASS
	120/5600	20.12	21.09	24.00	PASS
	140/5700	17.62	18.59	24.00	PASS
	144/5720	19.27	20.24	24.00	PASS
802.11n HT40	102/5510	17.07	17.07	24.00	PASS
	118/5590	19.69	19.69	24.00	PASS
	134/5670	18.16	18.16	24.00	PASS
	142/5710	22.60	22.60	24.00	PASS
802.11ac VHT20	100/5500	19.41	20.38	24.00	PASS
	120/5600	20.18	21.15	24.00	PASS
	140/5700	20.26	21.23	24.00	PASS
	144/5720	18.72	19.69	24.00	PASS
802.11ac VHT40	102/5510	22.22	23.20	24.00	PASS
	118/5590	22.63	23.61	24.00	PASS
	134/5670	22.36	23.34	24.00	PASS
	142/5710	22.45	23.43	24.00	PASS
802.11ac VHT80	122/5610	13.55	14.55	24.00	PASS
	138/5690	18.94	19.94	24.00	PASS
802.11ax HE20	100/5500	19.12	19.12	24.00	PASS
	120/5600	19.55	19.55	24.00	PASS
	140/5700	19.89	19.89	24.00	PASS
	144/5720	18.95	18.95	24.00	PASS
802.11ax HE40	102/5510	15.66	15.66	24.00	PASS
	118/5590	21.92	21.92	24.00	PASS
	134/5670	22.28	22.28	24.00	PASS
	142/5710	22.13	22.13	24.00	PASS
802.11ax HE80	122/5610	19.77	19.77	24.00	PASS
	138/5690	22.36	22.36	24.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

U-NII-3

Test Mode	Channel/ Frequency (MHz)	Average Power Measured (dBm)	Average Power with duty factor (dBm)	Limit (dBm)	Conclusion
802.11a	144/5720	13.51	13.68	30.00	PASS
	149/5745	24.56	24.73	30.00	PASS
	157/5785	24.63	24.80	30.00	PASS
	165/5825	23.24	23.41	30.00	PASS
802.11n HT20	144/5720	14.57	15.54	30.00	PASS
	149/5745	22.33	23.30	30.00	PASS
	157/5785	23.24	24.21	30.00	PASS
	165/5825	24.06	25.03	30.00	PASS
802.11n HT40	142/5720	11.32	11.32	30.00	PASS
	151/5755	24.21	24.21	30.00	PASS
	159/5795	24.11	24.11	30.00	PASS
802.11ac VHT20	144/5720	16.50	17.47	30.00	PASS
	149/5745	23.40	24.37	30.00	PASS
	157/5785	23.06	24.03	30.00	PASS
	165/5825	23.62	24.59	30.00	PASS
802.11ac VHT40	142/5710	12.24	13.22	30.00	PASS
	151/5755	23.87	24.85	30.00	PASS
	159/5795	24.47	25.45	30.00	PASS
802.11ac VHT80	138/5690	4.32	5.32	30.00	PASS
	155/5775	18.38	19.38	30.00	PASS
802.11ax HE20	144/5720	16.28	16.28	30.00	PASS
	149/5745	23.18	23.18	30.00	PASS
	157/5785	23.33	23.33	30.00	PASS
	165/5825	23.49	23.49	30.00	PASS
802.11ax HE40	142/5710	13.11	13.11	30.00	PASS
	151/5755	22.14	22.14	30.00	PASS
	159/5795	22.57	22.57	30.00	PASS
802.11ax HE80	138/5690	8.68	8.68	30.00	PASS
	155/5775	21.75	21.75	30.00	PASS
Note: Average Power with duty factor = Average Power Measured +Duty cycle correction factor					

MIMO

U-NII-1

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	6.72	6.89	9.33	9.50	11.40	24.00	PASS
	40/5200	6.71	6.88	9.58	9.75	11.55	24.00	PASS
	48/5240	7.64	7.81	10.41	10.58	12.42	24.00	PASS
802.11n HT20	36/5180	6.29	7.26	9.44	10.41	12.12	24.00	PASS
	40/5200	6.68	7.65	9.55	10.52	12.33	24.00	PASS
	48/5240	6.35	7.32	9.40	10.37	12.12	24.00	PASS
802.11n HT40	38/5190	9.25	9.25	12.04	12.04	13.87	24.00	PASS
	46/5230	9.36	9.36	11.73	11.73	13.71	24.00	PASS
802.11ac VHT20	36/5180	6.62	7.59	9.30	10.27	12.14	24.00	PASS
	40/5200	6.50	7.47	9.60	10.57	12.30	24.00	PASS
	48/5240	6.37	7.34	8.79	9.76	11.73	24.00	PASS
802.11ac VHT40	38/5190	8.95	9.93	12.44	13.42	15.03	24.00	PASS
	46/5230	9.06	10.04	11.94	12.92	14.73	24.00	PASS
802.11ac VHT80	42/5210	11.27	12.27	14.76	15.76	17.36	24.00	PASS
802.11ax HE20	36/5180	6.09	6.09	9.16	9.16	10.90	24.00	PASS
	40/5200	6.26	6.26	9.50	9.50	11.19	24.00	PASS
	48/5240	6.53	6.53	9.18	9.18	11.06	24.00	PASS
802.11ax HE40	38/5190	9.04	9.04	11.67	11.67	13.56	24.00	PASS
	46/5230	8.75	8.75	11.63	11.63	13.44	24.00	PASS
802.11ax HE80	42/5210	11.45	11.45	14.51	14.51	16.26	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain = 4.95 + 0 = 4.95 dBi<6dBi. So the power limit is 30dBm.

U-NII-2A

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	13.77	13.94	15.99	16.16	18.20	24.00	PASS
	60/5300	14.05	14.22	16.85	17.02	18.85	24.00	PASS
	64/5320	14.29	14.46	16.39	16.56	18.64	24.00	PASS
802.11n HT20	52/5260	13.19	14.16	16.41	17.38	19.07	24.00	PASS
	60/5300	12.86	13.83	15.77	16.74	18.53	24.00	PASS
	64/5320	13.24	14.21	15.04	16.01	18.21	24.00	PASS
802.11n HT40	54/5270	16.31	16.31	18.45	18.45	20.52	24.00	PASS
	62/5310	17.24	17.24	17.83	17.83	20.55	24.00	PASS
802.11ac VHT20	52/5260	13.66	14.63	16.23	17.20	19.11	24.00	PASS
	60/5300	14.02	14.99	15.48	16.45	18.79	24.00	PASS
	64/5320	14.47	15.44	15.13	16.10	18.79	24.00	PASS
802.11ac VHT40	54/5270	16.24	17.22	18.53	19.51	21.52	24.00	PASS
	62/5310	17.53	18.51	18.41	19.39	21.98	24.00	PASS
802.11ac VHT80	58/5290	12.88	13.88	14.39	15.39	17.71	24.00	PASS
802.11ax HE20	52/5260	13.28	13.28	16.03	16.03	17.88	24.00	PASS
	60/5300	13.69	13.69	15.42	15.42	17.65	24.00	PASS
	64/5320	14.01	14.01	14.62	14.62	17.34	24.00	PASS
802.11ax HE40	54/5270	17.28	17.28	18.93	18.93	21.19	24.00	PASS
	62/5310	12.20	12.20	13.31	13.31	15.80	24.00	PASS
802.11ax HE80	58/5290	13.47	13.47	15.21	15.21	17.44	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}$.

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain = 4.89 + 0 = 4.89 dBi<6dBi. So the power limit is 24dBm.

U-NII-2C

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	16.26	16.43	15.34	15.51	19.01	24.00	PASS
	120/5600	15.37	15.54	14.25	14.42	18.03	24.00	PASS
	140/5700	15.31	15.48	15.33	15.50	18.50	24.00	PASS
	144/5720	14.46	14.63	14.73	14.90	17.77	23.98	PASS
802.11n HT20	100/5500	15.16	16.13	14.29	15.26	18.73	24.00	PASS
	120/5600	15.09	16.06	14.27	15.24	18.68	24.00	PASS
	140/5700	14.43	15.40	14.30	15.27	18.35	24.00	PASS
	144/5720	14.26	15.23	14.28	15.25	18.25	24.00	PASS
802.11n HT40	102/5510	13.47	13.47	13.41	13.41	16.45	24.00	PASS
	118/5590	18.56	18.56	17.60	17.60	21.12	24.00	PASS
	134/5670	14.95	14.95	15.10	15.10	18.03	24.00	PASS
	142/5710	17.92	17.92	17.66	17.66	20.80	24.00	PASS
802.11ac VHT20	100/5500	15.52	16.49	13.91	14.88	18.77	24.00	PASS
	120/5600	15.40	16.37	14.30	15.27	18.86	24.00	PASS
	140/5700	15.49	16.46	15.53	16.50	19.49	24.00	PASS
	144/5720	14.40	15.37	14.52	15.49	18.44	24.00	PASS
802.11ac VHT40	102/5510	18.10	19.08	17.12	18.10	21.63	24.00	PASS
	118/5590	19.27	20.25	17.49	18.47	22.46	24.00	PASS
	134/5670	17.70	18.68	17.36	18.34	21.52	24.00	PASS
	142/5710	17.79	18.77	17.79	18.77	21.78	24.00	PASS
802.11ac VHT80	122/5610	10.40	11.40	10.36	11.36	14.39	24.00	PASS
	138/5690	15.62	16.62	16.05	17.05	19.85	24.00	PASS
802.11ax HE20	100/5500	14.94	14.94	14.35	14.35	17.66	24.00	PASS
	120/5600	15.08	15.08	14.06	14.06	17.61	24.00	PASS
	140/5700	14.93	14.93	15.21	15.21	18.08	24.00	PASS
	144/5720	14.26	14.26	14.00	14.00	17.14	24.00	PASS
802.11ax HE40	102/5510	12.29	12.29	11.74	11.74	15.03	24.00	PASS
	118/5590	18.26	18.26	17.00	17.00	20.68	24.00	PASS
	134/5670	18.28	18.28	17.91	17.91	21.11	24.00	PASS
	142/5710	17.05	17.05	16.69	16.69	19.89	24.00	PASS
802.11ax HE80	122/5610	19.32	19.32	18.02	18.02	21.73	24.00	PASS
	138/5690	19.01	19.01	18.96	18.96	21.99	24.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. The manufacturer declared the transmitter output signals is CDD mode And N_{ss}=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain = 4.94 + 0 = 4.94 dBi<6dBi. So the power limit is 24dBm.

U-NII-3

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	144/5720	10.23	10.40	11.04	11.21	13.84	30.00	PASS
	149/5745	22.97	23.14	23.70	23.87	26.53	30.00	PASS
	157/5785	23.11	23.28	24.01	24.18	26.76	30.00	PASS
	165/5825	19.44	19.61	20.71	20.88	23.30	30.00	PASS
802.11n HT20	144/5720	11.06	12.03	12.78	13.75	15.99	30.00	PASS
	149/5745	18.28	19.25	20.15	21.12	23.29	30.00	PASS
	157/5785	22.08	23.05	23.03	24.00	26.56	30.00	PASS
	165/5825	21.86	22.83	23.49	24.46	26.73	30.00	PASS
802.11n HT40	142/5710	8.31	8.31	9.51	9.51	11.96	30.00	PASS
	151/5755	16.17	16.17	17.82	17.82	20.08	30.00	PASS
	159/5795	17.14	17.14	19.27	19.27	21.34	30.00	PASS
802.11ac VHT20	144/5720	15.61	16.58	15.01	15.98	19.30	30.00	PASS
	149/5745	22.24	23.21	22.65	23.62	26.43	30.00	PASS
	157/5785	21.82	22.79	22.87	23.84	26.36	30.00	PASS
	165/5825	21.68	22.65	23.07	24.04	26.41	30.00	PASS
802.11ac VHT40	142/5710	11.12	12.10	11.73	12.71	15.43	30.00	PASS
	151/5755	22.68	23.66	23.38	24.36	27.03	30.00	PASS
	159/5795	22.58	23.56	23.64	24.62	27.13	30.00	PASS
802.11ac VHT80	138/5690	0.87	1.87	2.54	3.54	5.80	30.00	PASS
	155/5775	14.84	15.84	16.84	17.84	19.97	30.00	PASS
802.11ax HE20	144/5720	15.07	15.07	15.42	15.42	18.26	30.00	PASS
	149/5745	21.60	21.60	22.44	22.44	25.05	30.00	PASS
	157/5785	21.75	21.75	22.75	22.75	25.29	30.00	PASS
	165/5825	21.85	21.85	23.06	23.06	25.51	30.00	PASS
802.11ax HE40	142/5710	11.38	11.38	12.38	12.38	14.92	30.00	PASS
	151/5755	18.78	18.78	20.60	20.60	22.79	30.00	PASS
	159/5795	18.20	18.20	20.86	20.86	22.74	30.00	PASS
802.11ax HE80	138/5690	5.74	5.74	6.71	6.71	9.26	30.00	PASS
	155/5775	17.29	17.29	19.54	19.54	21.57	30.00	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power $=10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. The manufacturer declared the transmitter output signals is CDD mode And $N_{ss}=1$. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain,

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

So directional gain = G_{ANT} + Array Gain = 5.28 + 0 = 5.28 dBi<6dBi. So the power limit is 30dBm.

Beamforming

U-NII-1

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	36/5180	6.72	6.89	9.33	9.50	11.40	22.04	PASS
	40/5200	6.71	6.88	9.58	9.75	11.55	22.04	PASS
	48/5240	7.64	7.81	10.41	10.58	12.42	22.04	PASS
802.11n HT20	36/5180	6.29	7.26	9.44	10.41	12.12	22.04	PASS
	40/5200	6.68	7.65	9.55	10.52	12.33	22.04	PASS
	48/5240	6.35	7.32	9.40	10.37	12.12	22.04	PASS
802.11n HT40	38/5190	9.25	9.25	12.04	12.04	13.87	22.04	PASS
	46/5230	9.36	9.36	11.73	11.73	13.71	22.04	PASS
802.11ac VHT20	36/5180	6.62	7.59	9.30	10.27	12.14	22.04	PASS
	40/5200	6.50	7.47	9.60	10.57	12.30	22.04	PASS
	48/5240	6.37	7.34	8.79	9.76	11.73	22.04	PASS
802.11ac VHT40	38/5190	8.95	9.93	12.44	13.42	15.03	22.04	PASS
	46/5230	9.06	10.04	11.94	12.92	14.73	22.04	PASS
802.11ac VHT80	42/5210	8.19	9.19	11.19	12.19	13.95	22.04	PASS
802.11ax HE20	36/5180	6.09	6.09	9.16	9.16	10.90	22.04	PASS
	40/5200	6.26	6.26	9.50	9.50	11.19	22.04	PASS
	48/5240	6.53	6.53	9.18	9.18	11.06	22.04	PASS
802.11ax HE40	38/5190	9.04	9.04	11.67	11.67	13.56	22.04	PASS
	46/5230	8.75	8.75	11.63	11.63	13.44	22.04	PASS
802.11ax HE80	42/5210	8.25	8.25	10.91	10.91	12.79	22.04	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = $G_{ANT} + 10\log(N_{ANT}/Nss) = 4.95 + 10\log(2/1) = 7.96$ dBi ＞6dBi. So the limit is 24 – (7.96 - 6) = 22.04 dBm.

U-NII-2A

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	52/5260	13.77	13.94	15.99	16.16	18.20	22.10	PASS
	60/5300	14.05	14.22	16.85	17.02	18.85	22.10	PASS
	64/5320	14.29	14.46	16.39	16.56	18.64	22.10	PASS
802.11n HT20	52/5260	13.19	14.16	16.41	17.38	19.07	22.10	PASS
	60/5300	12.86	13.83	15.77	16.74	18.53	22.10	PASS
	64/5320	13.24	14.21	15.04	16.01	18.21	22.10	PASS
802.11n HT40	54/5270	16.31	16.31	18.45	18.45	20.52	22.10	PASS
	62/5310	17.24	17.24	17.83	17.83	20.55	22.10	PASS
802.11ac VHT20	52/5260	13.66	14.63	16.23	17.20	19.11	22.10	PASS
	60/5300	14.02	14.99	15.48	16.45	18.79	22.10	PASS
	64/5320	14.47	15.44	15.13	16.10	18.79	22.10	PASS
802.11ac VHT40	54/5270	16.24	17.22	18.53	19.51	21.52	22.10	PASS
	62/5310	17.53	18.51	18.41	19.39	21.98	22.10	PASS
802.11ac VHT80	58/5290	12.88	13.88	14.39	15.39	17.71	22.10	PASS
802.11ax HE20	52/5260	13.28	13.28	16.03	16.03	17.88	22.10	PASS
	60/5300	13.69	13.69	15.42	15.42	17.65	22.10	PASS
	64/5320	14.01	14.01	14.62	14.62	17.34	22.10	PASS
802.11ax HE40	54/5270	17.28	17.28	18.53	18.53	20.96	22.10	PASS
	62/5310	12.20	12.20	13.31	13.31	15.80	22.10	PASS
802.11ax HE80	58/5290	13.47	13.47	15.21	15.21	17.44	22.10	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm/10})}+10^{(\text{Power antenna2 in dBm/10})}$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = $G_{ANT} + 10\log(N_{ANT}/Nss) = 4.89 + 10\log(2/1) = 7.90$ dBi ＞6dBi. So the limit is 24 – (7.90 - 6) = 22.1 dBm.

U-NII-2C

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	100/5500	16.26	16.43	15.36	15.53	19.02	22.05	PASS
	120/5600	15.53	15.70	14.91	15.08	18.41	22.05	PASS
	140/5700	15.31	15.48	15.33	15.50	18.50	22.05	PASS
	144/5720	14.46	14.63	14.73	14.90	17.77	22.03	PASS
802.11n HT20	100/5500	15.19	16.16	14.29	15.26	18.74	22.05	PASS
	120/5600	15.05	16.02	14.66	15.63	18.84	22.05	PASS
	140/5700	14.43	15.40	14.30	15.27	18.35	22.05	PASS
	144/5720	14.26	15.23	14.28	15.25	18.25	22.05	PASS
802.11n HT40	102/5510	13.47	13.47	13.41	17.12	18.68	22.05	PASS
	118/5590	17.93	17.93	17.45	17.45	20.71	22.05	PASS
	134/5670	14.95	14.95	15.10	15.10	18.03	22.05	PASS
	142/5710	17.92	17.92	17.66	17.66	20.80	22.05	PASS
802.11ac VHT20	100/5500	15.52	16.49	13.91	14.88	18.77	22.05	PASS
	120/5600	15.49	16.46	14.85	15.82	19.16	22.05	PASS
	140/5700	15.49	16.46	15.53	16.50	19.49	22.05	PASS
	144/5720	14.40	15.37	14.52	15.49	18.44	22.05	PASS
802.11ac VHT40	102/5510	18.10	19.08	17.12	18.10	21.63	22.05	PASS
	118/5590	17.46	18.44	17.04	18.02	21.25	22.05	PASS
	134/5670	17.70	18.68	17.36	18.34	21.52	22.05	PASS
	142/5710	17.79	18.77	17.79	18.77	21.78	22.05	PASS
802.11ac VHT80	122/5610	15.76	16.76	14.29	15.29	19.10	22.05	PASS
	138/5690	15.62	16.62	16.05	17.05	19.85	22.05	PASS
802.11ax HE20	100/5500	14.94	14.94	16.05	16.05	18.54	22.05	PASS
	120/5600	14.90	14.90	14.79	14.79	17.85	22.05	PASS
	140/5700	14.93	14.93	15.21	15.21	18.08	22.05	PASS
	144/5720	14.26	14.26	14.00	14.00	17.14	22.05	PASS
802.11ax HE40	102/5510	12.29	12.29	11.74	11.74	15.03	22.05	PASS
	118/5590	18.11	18.11	17.99	17.99	21.06	22.05	PASS
	134/5670	18.08	18.08	17.91	17.91	21.01	22.05	PASS
	142/5710	17.05	17.05	16.69	16.69	19.89	22.05	PASS
802.11ax HE80	122/5610	18.07	18.07	18.01	18.01	21.05	22.05	PASS
	138/5690	18.01	18.01	18.06	18.06	21.04	22.05	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = $G_{ANT} + 10\log(N_{ANT}/Nss) = 4.94 + 10\log(2/1) = 7.95$ dBi ＞6dBi. So the limit is 24 – (7.95 - 6) = 22.05 dBm.

U-NII-3

Test Mode	Channel/ Frequency (MHz)	MIMO Antenna 1		MIMO Antenna 2		Total Power (dBm)	Limit (dBm)	Conclusion
		Average Power Measured (dBm)	Average Power with duty factor (dBm)	Average Power Measured (dBm)	Average Power with duty factor (dBm)			
802.11a	144/5720	10.23	10.40	11.04	11.21	13.84	27.71	PASS
	149/5745	22.97	23.14	23.70	23.87	26.53	27.71	PASS
	157/5785	23.11	23.28	24.01	24.18	26.76	27.71	PASS
	165/5825	19.44	19.61	20.71	20.88	23.30	27.71	PASS
802.11n HT20	144/5720	11.06	12.03	12.78	13.75	15.99	27.71	PASS
	149/5745	18.28	19.25	20.15	21.12	23.29	27.71	PASS
	157/5785	22.08	23.05	23.03	24.00	26.56	27.71	PASS
	165/5825	21.86	22.83	23.49	24.46	26.73	27.71	PASS
802.11n HT40	142/5710	8.31	8.31	9.51	9.51	11.96	27.71	PASS
	151/5755	16.17	16.17	17.82	17.82	20.08	27.71	PASS
	159/5795	17.14	17.14	19.27	19.27	21.34	27.71	PASS
802.11ac VHT20	144/5720	15.61	16.58	15.01	15.98	19.30	27.71	PASS
	149/5745	22.24	23.21	22.65	23.62	26.43	27.71	PASS
	157/5785	21.82	22.79	22.87	23.84	26.36	27.71	PASS
	165/5825	21.68	22.65	23.07	24.04	26.41	27.71	PASS
802.11ac VHT40	142/5710	11.12	12.10	11.73	12.71	15.43	27.71	PASS
	151/5755	22.68	23.66	23.38	24.36	27.03	27.71	PASS
	159/5795	22.58	23.56	23.64	24.62	27.13	27.71	PASS
802.11ac VHT80	138/5690	0.87	1.87	2.54	3.54	5.80	27.71	PASS
	155/5775	14.84	15.84	16.84	17.84	19.97	27.71	PASS
802.11ax HE20	144/5720	15.07	15.07	15.42	15.42	18.26	27.71	PASS
	149/5745	21.60	21.60	22.44	22.44	25.05	27.71	PASS
	157/5785	21.75	21.75	22.75	22.75	25.29	27.71	PASS
	165/5825	21.85	21.85	23.06	23.06	25.51	27.71	PASS
802.11ax HE40	142/5710	11.38	11.38	12.38	12.38	14.92	27.71	PASS
	151/5755	18.78	18.78	20.60	20.60	22.79	27.71	PASS
	159/5795	18.20	18.20	20.86	20.86	22.74	27.71	PASS
802.11ax HE80	138/5690	5.74	5.74	6.71	6.71	9.26	27.71	PASS
	155/5775	17.29	17.29	19.54	19.54	21.57	27.71	PASS

Note: 1. For Total Power, according to KDB 662911 D01 Multiple Transmitter Output v02r01 1),

The Total Power =$10\log(10^{(\text{Power antenna1 in dBm}/10)}+10^{(\text{Power antenna2 in dBm}/10)}$.

2. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = $G_{ANT} + 10\log(N_{ANT}/Nss) = 5.28 + 10\log(2/1) = 8.29$ dBi ＞6dBi. So the limit is 30 – (8.29 - 6) = 27.71 dBm.

5.3. Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

Method of Measurement

1. Frequency stability with respect to ambient temperature

a) Supply the EUT with a nominal ac voltage or install a new or fully charged battery in the EUT. If possible, a dummy load shall be connected to the EUT because an antenna near the metallic walls of an environmental test chamber could affect the output frequency of the EUT. If the EUT is equipped with a permanently attached, adjustable-length antenna, then the EUT shall be placed in the center of the chamber with the antenna adjusted to the shortest length possible. Turn ON the EUT and tune it to one of the number of frequencies shown in 5.6.

b) Couple the unlicensed wireless device output to the measuring instrument by connecting an antenna to the measuring instrument with a suitable length of coaxial cable and placing the measuring antenna near the EUT (e.g., 15 cm away), or by connecting a dummy load to the measuring instrument, through an attenuator if necessary.

c) Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).

d) Turn the EUT OFF and place it inside the environmental temperature chamber. For devices that have oscillator heaters, energize only the heater circuit.

e) Set the temperature control on the chamber to the highest specified in the regulatory requirements for the type of device and allow the oscillator heater and the chamber temperature to stabilize.

f) While maintaining a constant temperature inside the environmental chamber, turn the EUT ON and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made.

g) Measure the frequency at each of frequencies specified in 5.6.

h) Switch OFF the EUT but do not switch OFF the oscillator heater.

i) Lower the chamber temperature by not more that 10°C, and allow the temperature inside the chamber to stabilize.

j) Repeat step f) through step i) down to the lowest specified temperature.

2. Frequency stability when varying supply voltage

Unless otherwise specified, these tests shall be made at ambient room temperature (+15°C to +25 °C). An antenna shall be connected to the antenna output terminals of the EUT if possible. If the EUT is equipped with or uses an adjustable-length antenna, then it shall be fully extended.

a) Supply the EUT with nominal voltage or install a new or fully charged battery in the EUT. Turn ON the EUT and couple its output to a frequency counter or other frequency-measuring instrument.

b) Tune the EUT to one of the number of frequencies required in 5.6. Adjust the location of the measurement antenna and the controls on the measurement instrument to obtain a suitable signal level (i.e., a level that will not overload the measurement instrument but is strong enough to allow measurement of the operating or fundamental frequency of the EUT).
c) Measure the frequency at each of the frequencies specified in 5.6.
d) Repeat the above procedure at 85% and 115% of the nominal supply voltage.

Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 936Hz

Test Results

Voltage (V)	Temperature (°C)	U-NII-1 Test Results			
		5200MHz			
		1min	2min	5min	10min
24	-30	5199.995351	5199.987609	5199.983663	5199.981936
24	-20	5200.000747	5199.987469	5199.976684	5199.981553
24	-10	5199.993488	5199.986633	5199.972068	5199.978143
24	0	5199.995275	5199.981828	5199.968084	5199.971751
24	10	5199.990229	5199.978028	5199.962631	5199.964039
24	20	5199.983655	5199.972338	5199.954469	5199.961135
24	30	5199.976908	5199.964089	5199.945742	5199.953887
24	40	5199.970597	5199.963569	5199.944790	5199.949032
24	50	5199.961408	5199.963502	5199.940370	5199.946333
9	20	5199.957457	5199.962686	5199.939943	5199.941290
36	20	5199.955308	5199.957489	5199.934257	5199.940141
Max. ΔMHz		-0.044692	-0.042511	-0.065743	-0.059859
PPM		-8.594615	-8.175192	-12.642885	-11.511346

Voltage (V)	Temperature (°C)	U-NII-2A Test Results			
		5300MHz			
		1min	2min	5min	10min
24	-30	5300.007958	5300.007404	5300.001746	5299.993205
24	-20	5300.001228	5300.004911	5299.994278	5299.992084
24	-10	5299.995967	5299.999502	5299.987539	5299.991647
24	0	5299.993530	5299.996332	5299.992698	5299.991626
24	10	5299.989595	5299.992990	5299.984049	5299.984740
24	20	5299.985399	5299.983477	5299.979630	5299.980981
24	30	5299.979973	5299.981476	5299.970124	5299.973964
24	40	5299.978026	5299.979200	5299.967026	5299.972374
24	50	5299.976891	5299.977415	5299.965360	5299.970931
9	20	5299.974549	5299.967625	5299.955940	5299.966799
36	20	5299.966793	5299.966058	5299.952924	5299.961864
Max. ΔMHz		-0.033207	-0.033942	-0.047076	-0.038136
PPM		-6.265472	-6.404151	-8.882264	-7.195472

Voltage (V)	Temperature (°C)	U-NII-2C Test Results			
		5580MHz			
		1min	2min	5min	10min
24	-30	5579.992198	5579.984371	5579.979611	5579.969679
24	-20	5579.990154	5579.974964	5579.977573	5579.968983
24	-10	5579.983665	5579.965122	5579.968532	5579.960229
24	0	5579.980956	5579.969890	5579.969618	5579.959717
24	10	5579.979439	5579.961064	5579.962453	5579.957289
24	20	5579.969709	5579.951157	5579.958059	5579.954015
24	30	5579.962640	5579.944927	5579.953086	5579.948220
24	40	5579.956697	5579.936045	5579.946540	5579.947875
24	50	5579.954925	5579.928113	5579.941152	5579.943231
9	20	5579.948156	5579.925976	5579.934635	5579.939270
36	20	5579.945058	5579.922660	5579.927429	5579.936375
Max. ΔMHz		-0.054942	-0.077340	-0.072571	-0.063625
PPM		-9.846237	-13.860215	-13.005556	-11.402330

Voltage (V)	Temperature (°C)	U-NII-3 Test Results			
		5785MHz			
		1min	2min	5min	10min
24	-30	5785.001799	5784.993796	5784.983940	5784.978491
24	-20	5784.996112	5784.989732	5784.975466	5784.977306
24	-10	5784.991691	5784.988813	5784.974117	5784.974044
24	0	5784.993621	5784.987300	5784.969673	5784.969738
24	10	5784.983887	5784.980607	5784.961057	5784.969575
24	20	5784.975077	5784.978643	5784.953467	5784.964835
24	30	5784.974477	5784.976644	5784.950686	5784.960513
24	40	5784.967251	5784.972336	5784.941460	5784.955493
24	50	5784.963669	5784.964570	5784.938606	5784.950153
9	20	5784.957954	5784.958082	5784.933390	5784.942798
36	20	5784.954761	5784.955626	5784.930686	5784.933754
Max. ΔMHz		-0.045239	-0.044374	-0.069314	-0.066246
PPM		-7.820052	-7.670527	-11.981677	-11.451340

5.4. Power Spectral Density

Ambient condition

Temperature	Relative humidity	Pressure
15°C ~ 35°C	20% ~ 80%	86 kPa ~ 106 kPa

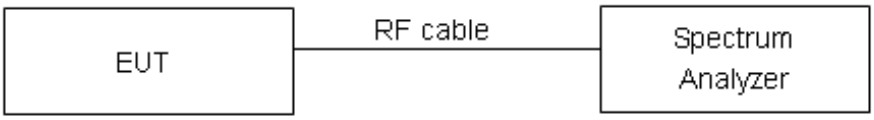
Method of Measurement

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable.

Set RBW = 1MHz, VBW =3MHz for the band 5.150-5.250GHz, 5.250-5.350GHz, 5.470-5.725GHz.
Set RBW = 470kHz, VBW =1.5MHz for the band 5.725-5.850GHz

The conducted PSD is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically.

Test setup



Limits

Rule FCC Part 15.407(a)(1)/ FCC Part 15.407(a)(2) / FCC Part 15.407(a)(3)
For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500kHz band. If transmittingantennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the

amount in dB that the directional gain of the antenna exceeds 6 dBi.

Frequency Bands/GHz	Limits
5.15-5.25	17/11dBm/MHz
5.25-5.35 and 5.47-5.725	11dBm/MHz
5.725-5.85	30dBm/500kHz

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 0.75dB.

Test Results:

SISO Antenna 1

U-NII-1

Mode	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	4.47	4.64	11	PASS
	40/5200	2.41	2.58	11	PASS
	48/5240	4.47	4.64	11	PASS
802.11n HT20	36/5180	3.11	4.08	11	PASS
	40/5200	1.49	2.46	11	PASS
	48/5240	3.03	4.00	11	PASS
802.11n HT40	38/5190	1.18	1.18	11	PASS
	46/5230	1.16	1.16	11	PASS
802.11ac VHT20	36/5180	2.98	3.95	11	PASS
	40/5200	1.15	2.12	11	PASS
	48/5240	1.07	2.04	11	PASS
802.11ac VHT40	38/5190	1.19	2.17	11	PASS
	46/5230	1.12	2.10	11	PASS
802.11ac VHT80	42/5210	-0.19	0.81	11	PASS
802.11ax HE20	36/5180	2.66	2.66	11	PASS
	40/5200	0.97	0.97	11	PASS
	48/5240	2.98	2.98	11	PASS
802.11ax HE40	38/5190	0.77	0.77	11	PASS
	46/5230	0.40	0.40	11	PASS
802.11ax HE80	42/5210	-0.74	-0.74	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2A

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	5.06	5.23	11	PASS
	60/5300	5.24	5.41	11	PASS
	64/5320	5.44	5.61	11	PASS
802.11n HT20	52/5260	3.52	4.49	11	PASS
	60/5300	4.34	5.31	11	PASS
	64/5320	3.86	4.83	11	PASS
802.11n HT40	54/5270	3.71	3.71	11	PASS
	62/5310	-0.45	-0.45	11	PASS
802.11ac VHT20	52/5260	9.37	10.34	11	PASS
	60/5300	9.00	9.97	11	PASS
	64/5320	9.42	10.39	11	PASS
802.11ac VHT40	54/5270	8.76	9.74	11	PASS
	62/5310	9.46	10.44	11	PASS
802.11ac VHT80	58/5290	-3.46	-2.46	11	PASS
802.11ax HE20	52/5260	3.42	3.42	11	PASS
	60/5300	3.40	3.40	11	PASS
	64/5320	3.71	3.71	11	PASS
802.11ax HE40	54/5270	3.04	3.04	11	PASS
	62/5310	-1.33	-1.33	11	PASS
802.11ax HE80	58/5290	-2.96	-2.96	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2C

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	9.99	10.16	11	PASS
	120/5600	8.93	9.10	11	PASS
	140/5700	9.12	9.29	11	PASS
	144/5720	9.00	9.17	11	PASS
802.11n HT20	100/5500	8.91	9.88	11	PASS
	120/5600	5.91	6.88	11	PASS
	140/5700	5.21	6.18	11	PASS
	144/5720	10.00	10.97	11	PASS
802.11n HT40	102/5510	1.35	1.35	11	PASS
	118/5590	3.42	3.42	11	PASS
	134/5670	3.02	3.02	11	PASS
	142/5710	7.70	7.70	11	PASS
802.11ac VHT20	100/5500	8.96	9.93	11	PASS
	120/5600	9.81	10.78	11	PASS
	140/5700	9.72	10.69	11	PASS
	144/5720	9.63	10.60	11	PASS
802.11ac VHT40	102/5510	6.84	7.82	11	PASS
	118/5590	5.52	6.50	11	PASS
	134/5670	7.07	8.05	11	PASS
	142/5710	7.49	8.47	11	PASS
802.11ac VHT80	122/5610	-1.05	-0.05	11	PASS
	138/5690	0.32	1.32	11	PASS
802.11ax HE20	100/5500	8.80	8.80	11	PASS
	120/5600	9.37	9.37	11	PASS
	140/5700	9.62	9.62	11	PASS
	144/5720	9.42	9.42	11	PASS
802.11ax HE40	102/5510	0.19	0.19	11	PASS
	118/5590	4.88	4.88	11	PASS
	134/5670	6.58	6.58	11	PASS
	142/5710	7.06	7.06	11	PASS
802.11ax HE80	122/5610	1.99	1.99	11	PASS
	138/5690	3.78	3.78	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-3

Mode	Channel /Frequency (MHz)	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	144/5720	4.57	5.01	30	PASS
	149/5745	9.53	9.97	30	PASS
	157/5785	9.26	9.70	30	PASS
	165/5825	6.93	7.37	30	PASS
802.11n HT20	144/5720	5.01	6.25	30	PASS
	149/5745	5.56	6.80	30	PASS
	157/5785	8.00	9.24	30	PASS
	165/5825	7.84	9.08	30	PASS
802.11n HT40	142/5720	2.03	2.30	30	PASS
	151/5755	0.26	0.53	30	PASS
	159/5795	1.30	1.57	30	PASS
802.11ac VHT20	144/5720	7.81	9.05	30	PASS
	149/5745	8.25	9.49	30	PASS
	157/5785	8.14	9.38	30	PASS
	165/5825	7.94	9.18	30	PASS
802.11ac VHT40	142/5710	4.20	5.45	30	PASS
	151/5755	5.57	6.82	30	PASS
	159/5795	5.70	6.95	30	PASS
802.11ac VHT80	138/5690	-4.86	-3.59	30	PASS
	155/5775	-3.69	-2.42	30	PASS
802.11ax HE20	144/5720	7.69	7.96	30	PASS
	149/5745	7.81	8.08	30	PASS
	157/5785	7.50	7.77	30	PASS
	165/5825	7.51	7.78	30	PASS
802.11ax HE40	142/5710	4.10	4.37	30	PASS
	151/5755	2.76	3.03	30	PASS
	159/5795	2.93	3.20	30	PASS
802.11ax HE80	138/5690	-1.30	-1.03	30	PASS
	155/5775	-1.06	-0.79	30	PASS
Note: PSD=Read Value+Duty cycle correction factor +10*log(500/470)					

SISO Antenna 2

U-NII-1

Mode	Channel/ Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	36/5180	3.31	3.48	11	PASS
	40/5200	3.66	3.83	11	PASS
	48/5240	3.61	3.78	11	PASS
802.11n HT20	36/5180	1.46	2.43	11	PASS
	40/5200	2.08	3.05	11	PASS
	48/5240	2.19	3.16	11	PASS
802.11n HT40	38/5190	2.05	2.05	11	PASS
	46/5230	2.32	2.32	11	PASS
802.11ac VHT20	36/5180	2.30	3.27	11	PASS
	40/5200	2.15	3.12	11	PASS
	48/5240	2.62	3.59	11	PASS
802.11ac VHT40	38/5190	2.84	3.82	11	PASS
	46/5230	2.57	3.55	11	PASS
802.11ac VHT80	42/5210	-0.42	0.58	11	PASS
802.11ax HE20	36/5180	2.29	2.29	11	PASS
	40/5200	2.31	2.31	11	PASS
	48/5240	2.34	2.34	11	PASS
802.11ax HE40	38/5190	1.92	1.92	11	PASS
	46/5230	2.67	2.67	11	PASS
802.11ax HE80	42/5210	-0.89	-0.89	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2A

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	52/5260	8.89	9.06	11	PASS
	60/5300	9.55	9.72	11	PASS
	64/5320	9.71	9.88	11	PASS
802.11n HT20	52/5260	8.98	9.95	11	PASS
	60/5300	8.54	9.51	11	PASS
	64/5320	7.85	8.82	11	PASS
802.11n HT40	54/5270	8.24	8.24	11	PASS
	62/5310	3.13	3.13	11	PASS
802.11ac VHT20	52/5260	8.39	9.36	11	PASS
	60/5300	8.56	9.53	11	PASS
	64/5320	8.53	9.50	11	PASS
802.11ac VHT40	54/5270	8.00	8.98	11	PASS
	62/5310	7.96	8.94	11	PASS
802.11ac VHT80	58/5290	-0.25	0.75	11	PASS
802.11ax HE20	52/5260	8.56	8.56	11	PASS
	60/5300	8.42	8.42	11	PASS
	64/5320	7.83	7.83	11	PASS
802.11ax HE40	54/5270	7.93	7.93	11	PASS
	62/5310	2.97	2.97	11	PASS
802.11ax HE80	58/5290	0.65	0.65	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-2C

Mode	Channel /Frequency (MHz)	Read Value (dBm /MHz)	Power Spectral Density (dBm /MHz)	Limit (dBm /MHz)	Conclusion
802.11a	100/5500	10.05	10.22	11	PASS
	120/5600	9.96	10.13	11	PASS
	140/5700	8.88	9.05	11	PASS
	144/5720	8.99	9.16	11	PASS
802.11n HT20	100/5500	9.00	9.97	11	PASS
	120/5600	9.10	10.07	11	PASS
	140/5700	7.52	8.49	11	PASS
	144/5720	9.78	10.75	11	PASS
802.11n HT40	102/5510	3.54	3.54	11	PASS
	118/5590	5.27	5.27	11	PASS
	134/5670	4.65	4.65	11	PASS
	142/5710	9.70	9.70	11	PASS
802.11ac VHT20	100/5500	8.68	9.65	11	PASS
	120/5600	8.65	9.62	11	PASS
	140/5700	9.32	10.29	11	PASS
	144/5720	9.92	10.89	11	PASS
802.11ac VHT40	102/5510	8.59	9.57	11	PASS
	118/5590	8.22	9.20	11	PASS
	134/5670	8.93	9.91	11	PASS
	142/5710	9.18	10.16	11	PASS
802.11ac VHT80	122/5610	1.37	2.37	11	PASS
	138/5690	2.28	3.28	11	PASS
802.11ax HE20	100/5500	8.60	8.60	11	PASS
	120/5600	8.39	8.39	11	PASS
	140/5700	9.63	9.63	11	PASS
	144/5720	9.47	9.47	11	PASS
802.11ax HE40	102/5510	2.19	2.19	11	PASS
	118/5590	7.82	7.82	11	PASS
	134/5670	8.46	8.46	11	PASS
	142/5710	8.79	8.79	11	PASS
802.11ax HE80	122/5610	5.02	5.02	11	PASS
	138/5690	5.42	5.42	11	PASS
Note: Power Spectral Density =Read Value+Duty cycle correction factor					

U-NII-3

Mode	Channel /Frequency (MHz)	Read Value (dBm/470kHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Conclusion
802.11a	144/5720	6.68	7.12	30	PASS
	149/5745	10.71	11.15	30	PASS
	157/5785	10.98	11.42	30	PASS
	165/5825	9.47	9.91	30	PASS
802.11n HT20	144/5720	6.73	7.97	30	PASS
	149/5745	8.33	9.57	30	PASS
	157/5785	9.83	11.07	30	PASS
	165/5825	10.08	11.32	30	PASS
802.11n HT40	142/5720	3.99	4.26	30	PASS
	151/5755	7.12	7.39	30	PASS
	159/5795	7.13	7.40	30	PASS
802.11ac VHT20	144/5720	8.29	9.53	30	PASS
	149/5745	9.41	10.65	30	PASS
	157/5785	9.07	10.31	30	PASS
	165/5825	9.51	10.75	30	PASS
802.11ac VHT40	142/5710	5.08	6.33	30	PASS
	151/5755	6.86	8.11	30	PASS
	159/5795	6.83	8.08	30	PASS
802.11ac VHT80	138/5690	-3.48	-2.21	30	PASS
	155/5775	-1.52	-0.25	30	PASS
802.11ax HE20	144/5720	7.95	8.22	30	PASS
	149/5745	9.15	9.42	30	PASS
	157/5785	8.85	9.12	30	PASS
	165/5825	9.73	10.00	30	PASS
802.11ax HE40	142/5710	4.99	5.26	30	PASS
	151/5755	5.68	5.95	30	PASS
	159/5795	6.15	6.42	30	PASS
802.11ax HE80	138/5690	0.22	0.49	30	PASS
	155/5775	1.30	1.57	30	PASS
Note: PSD=Read Value+Duty cycle correction factor +10*log(500/470)					

MIMO

U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	36/5180	-3.48	-3.31	-0.99	-0.82	1.12	9.04	PASS
	40/5200	-3.86	-3.69	-0.66	-0.49	1.21	9.04	PASS
	48/5240	-2.73	-2.56	-0.03	0.14	2.01	9.04	PASS
802.11n HT20	36/5180	-3.77	-2.80	-1.07	-0.10	1.77	9.04	PASS
	40/5200	-3.55	-2.58	-1.18	-0.21	1.78	9.04	PASS
	48/5240	-4.19	-3.22	-1.24	-0.27	1.51	9.04	PASS
802.11n HT40	38/5190	-3.96	-3.96	-1.54	-1.54	0.43	9.04	PASS
	46/5230	-3.98	-3.98	-1.08	-1.08	0.72	9.04	PASS
802.11ac VHT20	36/5180	-4.29	-3.32	-1.18	-0.21	1.52	9.04	PASS
	40/5200	-3.95	-2.98	-1.00	-0.03	1.75	9.04	PASS
	48/5240	-3.72	-2.75	-1.11	-0.14	1.76	9.04	PASS
802.11ac VHT40	38/5190	-3.84	-2.86	-1.23	-0.25	1.65	9.04	PASS
	46/5230	-4.03	-3.05	-1.89	-0.91	1.16	9.04	PASS
802.11ac VHT80	42/5210	-4.41	-3.41	-1.53	-0.53	1.27	9.04	PASS
802.11ax HE20	36/5180	-4.29	-4.29	-1.31	-1.31	0.46	9.04	PASS
	40/5200	-3.75	-3.75	-1.18	-1.18	0.73	9.04	PASS
	48/5240	-4.05	-4.05	-1.81	-1.81	0.22	9.04	PASS
802.11ax HE40	38/5190	-4.12	-4.12	-1.57	-1.57	0.35	9.04	PASS
	46/5230	-4.56	-4.56	-1.72	-1.72	0.10	9.04	PASS
802.11ax HE80	42/5210	-5.20	-5.20	-1.68	-1.68	-0.08	9.04	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=$10\log(10^{(\text{PSD antenna 1 in dBm/10})}+10^{(\text{PSD antenna 2 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For PSD measurements on all devices, Array Gain=10log(Nant/Nss)dB,

so directional gain=G_{ANT}+Array Gain= 4.95+10log(2/1)= 7.96 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.96-6)= 9.04 dBm.

U-NII-2A

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	52/5260	3.48	3.65	5.79	5.96	7.97	9.10	PASS
	60/5300	3.72	3.89	5.67	5.84	7.98	9.10	PASS
	64/5320	4.24	4.41	6.18	6.35	8.50	9.10	PASS
802.11n HT20	52/5260	2.22	3.19	5.66	6.63	8.25	9.10	PASS
	60/5300	2.59	3.56	5.20	6.17	8.07	9.10	PASS
	64/5320	2.76	3.73	5.46	6.43	8.30	9.10	PASS
802.11n HT40	54/5270	2.84	2.84	4.78	4.78	6.93	9.10	PASS
	62/5310	3.56	3.56	4.59	4.59	7.12	9.10	PASS
802.11ac VHT20	52/5260	3.42	4.39	5.66	6.63	8.66	9.10	PASS
	60/5300	3.36	4.33	4.95	5.92	8.21	9.10	PASS
	64/5320	3.64	4.61	4.66	5.63	8.16	9.10	PASS
802.11ac VHT40	54/5270	2.68	3.66	4.91	5.89	7.93	9.10	PASS
	62/5310	3.69	4.67	4.36	5.34	8.03	9.10	PASS
802.11ac VHT80	58/5290	-3.79	-2.79	-2.42	-1.42	0.96	9.10	PASS
802.11ax HE20	52/5260	2.67	2.67	5.27	5.27	7.17	9.10	PASS
	60/5300	2.94	2.94	4.77	4.77	6.96	9.10	PASS
	64/5320	3.83	3.83	4.11	4.11	6.98	9.10	PASS
802.11ax HE40	54/5270	3.73	3.73	5.45	5.45	7.68	9.10	PASS
	62/5310	-1.35	-1.35	-0.75	-0.75	1.97	9.10	PASS
802.11ax HE80	58/5290	-2.82	-2.82	-1.55	-1.55	0.87	9.10	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=$10\log(10^{(\text{PSD antenna 1 in dBm/10})}+10^{(\text{PSD antenna 2 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For PSD measurements on all devices, Array Gain=10log(Nant/Nss)dB,

so directional gain=G_{ANT}+Array Gain= 4.89+10log(2/1)= 7.90 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.90-6)= 9.10 dBm.

U-NII-2C

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	100/5500	6.00	6.17	4.82	4.99	8.63	9.05	PASS
	120/5600	5.59	5.76	4.69	4.86	8.34	9.05	PASS
	140/5700	5.19	5.36	4.78	4.95	8.17	9.05	PASS
	144/5720	5.37	5.54	5.30	5.47	8.52	9.05	PASS
802.11n HT20	100/5500	5.43	6.40	3.91	4.88	8.72	9.05	PASS
	120/5600	5.13	6.10	4.51	5.48	8.81	9.05	PASS
	140/5700	4.76	5.73	4.74	5.71	8.73	9.05	PASS
	144/5720	4.87	5.84	4.75	5.72	8.79	9.05	PASS
802.11n HT40	102/5510	0.48	0.48	-0.32	-0.32	3.11	9.05	PASS
	118/5590	4.78	4.78	4.09	4.09	7.46	9.05	PASS
	134/5670	1.90	1.90	1.39	1.39	4.66	9.05	PASS
	142/5710	4.52	4.52	4.41	4.41	7.48	9.05	PASS
802.11ac VHT20	100/5500	4.88	5.85	3.83	4.80	8.37	9.05	PASS
	120/5600	5.17	6.14	4.43	5.40	8.80	9.05	PASS
	140/5700	4.77	5.74	4.71	5.68	8.72	9.05	PASS
	144/5720	4.92	5.89	5.08	6.05	8.98	9.05	PASS
802.11ac VHT40	102/5510	4.81	5.79	3.53	4.51	8.21	9.05	PASS
	118/5590	4.01	4.99	3.36	4.34	7.69	9.05	PASS
	134/5670	4.03	5.01	4.57	5.55	8.30	9.05	PASS
	142/5710	4.40	5.38	4.43	5.41	8.41	9.05	PASS
802.11ac VHT80	122/5610	-0.68	0.32	-0.96	0.04	3.19	9.05	PASS
	138/5690	-0.86	0.14	-0.73	0.27	3.22	9.05	PASS
802.11ax HE20	100/5500	4.90	4.90	3.89	3.89	7.43	9.05	PASS
	120/5600	4.99	4.99	4.09	4.09	7.57	9.05	PASS
	140/5700	4.68	4.68	4.47	4.47	7.59	9.05	PASS
	144/5720	4.79	4.79	4.64	4.64	7.73	9.05	PASS
802.11ax HE40	102/5510	-1.12	-1.12	-1.56	-1.56	1.68	9.05	PASS
	118/5590	5.36	5.36	4.61	4.61	8.01	9.05	PASS
	134/5670	5.00	5.00	4.53	4.53	7.78	9.05	PASS
	142/5710	4.46	4.46	4.16	4.16	7.32	9.05	PASS
802.11ax HE80	122/5610	2.46	2.46	1.27	1.27	4.92	9.05	PASS
	138/5690	3.04	3.04	2.23	2.23	5.66	9.05	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=10log($10^{(\text{PSD antenna 1 in dBm/10})}$+$10^{(\text{PSD antenna 2 in dBm/10})}$)

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For PSD measurements on all devices, Array Gain=10log(Nant/Nss)dB,

so directional gain=G_{ANT}+Array Gain= 4.94+10log(2/1)= 7.95 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.95-6)= 9.05 dBm.

U-NII-3

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 470kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 470kHz)			
802.11a	144/5720	3.06	3.50	3.62	4.06	6.80	27.71	PASS
	149/5745	9.26	9.70	10.07	10.51	13.13	27.71	PASS
	157/5785	9.42	9.86	10.37	10.81	13.37	27.71	PASS
	165/5825	5.89	6.33	7.20	7.64	10.04	27.71	PASS
802.11n HT20	144/5720	3.22	4.46	5.24	6.48	8.60	27.71	PASS
	149/5745	4.65	5.89	6.83	8.07	10.13	27.71	PASS
	157/5785	8.38	9.62	8.99	10.23	12.95	27.71	PASS
	165/5825	7.93	9.17	9.60	10.84	13.10	27.71	PASS
802.11n HT40	142/5710	0.74	1.01	2.23	2.50	4.83	27.71	PASS
	151/5755	-0.66	-0.39	0.96	1.23	3.51	27.71	PASS
	159/5795	0.09	0.36	2.15	2.42	4.52	27.71	PASS
802.11ac VHT20	144/5720	7.42	8.66	7.64	8.88	11.78	27.71	PASS
	149/5745	7.84	9.08	8.60	9.84	12.49	27.71	PASS
	157/5785	7.87	9.11	9.19	10.43	12.83	27.71	PASS
	165/5825	8.01	9.25	9.61	10.85	13.13	27.71	PASS
802.11ac VHT40	142/5710	3.38	4.63	4.46	5.71	8.21	27.71	PASS
	151/5755	5.62	6.87	6.23	7.48	10.20	27.71	PASS
	159/5795	5.83	7.08	6.71	7.96	10.55	27.71	PASS
802.11ac VHT80	138/5690	-6.83	-5.56	-5.11	-3.84	-1.61	27.71	PASS
	155/5775	-5.06	-3.79	-3.08	-1.81	0.32	27.71	PASS
802.11ax HE20	144/5720	6.29	6.56	7.17	7.44	10.03	27.71	PASS
	149/5745	7.74	8.01	8.28	8.55	11.30	27.71	PASS
	157/5785	7.74	8.01	8.73	9.00	11.54	27.71	PASS
	165/5825	7.86	8.13	9.15	9.42	11.83	27.71	PASS
802.11ax HE40	142/5710	3.36	3.63	3.65	3.92	6.79	27.71	PASS
	151/5755	1.45	1.72	3.43	3.70	5.83	27.71	PASS
	159/5795	1.69	1.96	4.12	4.39	6.35	27.71	PASS
802.11ax HE80	138/5690	-2.33	-2.06	-1.76	-1.49	1.24	27.71	PASS
	155/5775	-2.37	-2.10	-0.33	-0.06	2.05	27.71	PASS

Note: 1. PSD=Read Value+Duty cycle correction factor +10*log(500/470)

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=10log($10^{(\text{PSD antenna 1 in dBm/10})}$+$10^{(\text{PSD antenna 2 in dBm/10})}$)

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. According to KDB 662911 D01 Multiple Transmitter Output v02r01 F)2)f)(i): If all antennas have the same gain, Directional gain = G_{ANT} + Array Gain, For PSD measurements on all devices, Array Gain=10log(Nant/Nss)dB,

so directional gain=G_{ANT}+Array Gain= 5.28+10log(2/1)= 8.29 >6 dBi.

So the PSD limit is 30-(directional gain-6 dBi) =30-(8.29-6)= 27.71 dBm.

Beamforming

U-NII-1

Mode	Channel/ Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	36/5180	-3.48	-3.31	-0.99	-0.82	1.12	9.04	PASS
	40/5200	-3.86	-3.69	-0.66	-0.49	1.21	9.04	PASS
	48/5240	-2.73	-2.56	-0.03	0.14	2.01	9.04	PASS
802.11n HT20	36/5180	-3.77	-2.80	-1.07	-0.10	1.77	9.04	PASS
	40/5200	-3.55	-2.58	-1.18	-0.21	1.78	9.04	PASS
	48/5240	-4.19	-3.22	-1.24	-0.27	1.51	9.04	PASS
802.11n HT40	38/5190	-3.96	-3.96	-1.54	-1.54	0.43	9.04	PASS
	46/5230	-3.98	-3.98	-1.08	-1.08	0.72	9.04	PASS
802.11ac VHT20	36/5180	-4.29	-3.32	-1.18	-0.21	1.52	9.04	PASS
	40/5200	-3.95	-2.98	-1.00	-0.03	1.75	9.04	PASS
	48/5240	-3.72	-2.75	-1.11	-0.14	1.76	9.04	PASS
802.11ac VHT40	38/5190	-3.84	-2.86	-1.23	-0.25	1.65	9.04	PASS
	46/5230	-4.03	-3.05	-1.89	-0.91	1.16	9.04	PASS
802.11ac VHT80	42/5210	-8.06	-7.06	-5.68	-4.68	-2.70	9.04	PASS
802.11ax HE20	36/5180	-4.29	-4.29	-1.31	-1.31	0.46	9.04	PASS
	40/5200	-3.75	-3.75	-1.18	-1.18	0.73	9.04	PASS
	48/5240	-4.05	-4.05	-1.81	-1.81	0.22	9.04	PASS
802.11ax HE40	38/5190	-4.12	-4.12	-1.57	-1.57	0.35	9.04	PASS
	46/5230	-4.56	-4.56	-1.72	-1.72	0.10	9.04	PASS
802.11ax HE80	42/5210	-8.42	-8.42	-5.52	-5.52	-3.72	9.04	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=$10\log(10^{(\text{PSD antenna 1 in dBm/10})}+10^{(\text{PSD antenna 2 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = G_{ANT} + 10 log(N_{ANT}/Nss)=4.95+10log(2/1)= 7.96 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.96-6)= 9.04 dBm.

U-NII-2A

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	52/5260	3.48	3.65	5.79	5.96	7.97	9.10	PASS
	60/5300	3.72	3.89	5.67	5.84	7.98	9.10	PASS
	64/5320	4.24	4.41	6.18	6.35	8.50	9.10	PASS
802.11n HT20	52/5260	2.22	3.19	5.66	6.63	8.25	9.10	PASS
	60/5300	2.59	3.56	5.20	6.17	8.07	9.10	PASS
	64/5320	2.76	3.73	5.46	6.43	8.30	9.10	PASS
802.11n HT40	54/5270	2.84	2.84	4.78	4.78	6.93	9.10	PASS
	62/5310	3.56	3.56	4.59	4.59	7.12	9.10	PASS
802.11ac VHT20	52/5260	3.42	4.39	5.66	6.63	8.66	9.10	PASS
	60/5300	3.36	4.33	4.95	5.92	8.21	9.10	PASS
	64/5320	3.64	4.61	4.66	5.63	8.16	9.10	PASS
802.11ac VHT40	54/5270	2.68	3.66	4.91	5.89	7.93	9.10	PASS
	62/5310	3.69	4.67	4.36	5.34	8.03	9.10	PASS
802.11ac VHT80	58/5290	-3.79	-2.79	-2.42	-1.42	0.96	9.10	PASS
802.11ax HE20	52/5260	2.67	2.67	5.27	5.27	7.17	9.10	PASS
	60/5300	2.94	2.94	4.77	4.77	6.96	9.10	PASS
	64/5320	3.83	3.83	4.11	4.11	6.98	9.10	PASS
802.11ax HE40	54/5270	3.73	3.73	5.45	5.45	7.68	9.10	PASS
	62/5310	-1.35	-1.35	-0.75	-0.75	1.97	9.10	PASS
802.11ax HE80	58/5290	-2.82	-2.82	-1.55	-1.55	0.87	9.10	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=$10\log(10^{(\text{PSD antenna 1 in dBm/10})}+10^{(\text{PSD antenna 2 in dBm/10})})$

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = G_{ANT} + 10 log(N_{ANT}/Nss) = 4.89+10log(2/1)= 7.90 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.90-6)= 9.10 dBm.

U-NII-2C

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm /MHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/MHz)		
		Read Value (dBm/MHz)	PSD (dBm/MHz)	Read Value (dBm/MHz)	PSD (dBm/MHz)			
802.11a	100/5500	6.00	6.17	4.82	4.99	8.63	9.05	PASS
	120/5600	5.59	5.76	4.69	4.86	8.34	9.05	PASS
	140/5700	5.19	5.36	4.78	4.95	8.17	9.05	PASS
	144/5720	5.37	5.54	5.30	5.47	8.52	9.05	PASS
802.11n HT20	100/5500	5.43	6.40	3.91	4.88	8.72	9.05	PASS
	120/5600	5.13	6.10	4.51	5.48	8.81	9.05	PASS
	140/5700	4.76	5.73	4.74	5.71	8.73	9.05	PASS
	144/5720	4.87	5.84	4.75	5.72	8.79	9.05	PASS
802.11n HT40	102/5510	0.48	0.48	-0.32	-0.32	3.11	9.05	PASS
	118/5590	4.78	4.78	4.09	4.09	7.46	9.05	PASS
	134/5670	1.90	1.90	1.39	1.39	4.66	9.05	PASS
	142/5710	4.52	4.52	4.41	4.41	7.48	9.05	PASS
802.11ac VHT20	100/5500	4.88	5.85	3.83	4.80	8.37	9.05	PASS
	120/5600	5.17	6.14	4.43	5.40	8.80	9.05	PASS
	140/5700	4.77	5.74	4.71	5.68	8.72	9.05	PASS
	144/5720	4.92	5.89	5.08	6.05	8.98	9.05	PASS
802.11ac VHT40	102/5510	4.81	5.79	3.53	4.51	8.21	9.05	PASS
	118/5590	4.01	4.99	3.36	4.34	7.69	9.05	PASS
	134/5670	4.03	5.01	4.57	5.55	8.30	9.05	PASS
	142/5710	4.40	5.38	4.43	5.41	8.41	9.05	PASS
802.11ac VHT80	122/5610	-0.68	0.32	-0.96	0.04	3.19	9.05	PASS
	138/5690	-0.86	0.14	-0.73	0.27	3.22	9.05	PASS
802.11ax HE20	100/5500	4.90	4.90	3.89	3.89	7.43	9.05	PASS
	120/5600	4.99	4.99	4.09	4.09	7.57	9.05	PASS
	140/5700	4.68	4.68	4.47	4.47	7.59	9.05	PASS
	144/5720	4.79	4.79	4.64	4.64	7.73	9.05	PASS
802.11ax HE40	102/5510	-1.12	-1.12	-1.56	-1.56	1.68	9.05	PASS
	118/5590	5.36	5.36	4.61	4.61	8.01	9.05	PASS
	134/5670	5.00	5.00	4.53	4.53	7.78	9.05	PASS
	142/5710	4.46	4.46	4.16	4.16	7.32	9.05	PASS
802.11ax HE80	122/5610	2.46	2.46	1.27	1.27	4.92	9.05	PASS
	138/5690	3.04	3.04	2.23	2.23	5.66	9.05	PASS

Note: 1. Power Spectral Density =Read Value+Duty cycle correction factor

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=10log($10^{(\text{PSD antenna 1 in dBm/10})}$+$10^{(\text{PSD antenna 2 in dBm/10})}$)

3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = G_{ANT} + 10 log(N_{ANT}/Nss) = 4.94+10log(2/1)= 7.95 >6 dBi.

So the PSD limit is 11-(directional gain-6 dBi) =11-(7.95-6)= 9.05 dBm.

U-NII-3

Mode	Channel /Frequency (MHz)	Power Spectral Density					Limit (dBm/ 500kHz)	Conclusion
		Antenna 1		Antenna 2		Total PSD (dBm/ 500kHz)		
		Read Value (dBm/ 470kHz)	PSD (dBm/ 470kHz)	Read Value (dBm/ 470kHz)	PSD (dBm/ 470kHz)			
802.11a	144/5720	3.06	3.50	3.62	4.06	6.80	27.71	PASS
	149/5745	9.26	9.70	10.07	10.51	13.13	27.71	PASS
	157/5785	9.42	9.86	10.37	10.81	13.37	27.71	PASS
	165/5825	5.89	6.33	7.20	7.64	10.04	27.71	PASS
802.11n HT20	144/5720	3.22	4.46	5.24	6.48	8.60	27.71	PASS
	149/5745	4.65	5.89	6.83	8.07	10.13	27.71	PASS
	157/5785	8.38	9.62	8.99	10.23	12.95	27.71	PASS
	165/5825	7.93	9.17	9.60	10.84	13.10	27.71	PASS
802.11n HT40	142/5710	0.74	1.01	2.23	2.50	4.83	27.71	PASS
	151/5755	-0.66	-0.39	0.96	1.23	3.51	27.71	PASS
	159/5795	0.09	0.36	2.15	2.42	4.52	27.71	PASS
802.11ac VHT20	144/5720	7.42	8.66	7.64	8.88	11.78	27.71	PASS
	149/5745	7.84	9.08	8.60	9.84	12.49	27.71	PASS
	157/5785	7.87	9.11	9.19	10.43	12.83	27.71	PASS
	165/5825	8.01	9.25	9.61	10.85	13.13	27.71	PASS
802.11ac VHT40	142/5710	3.38	4.63	4.46	5.71	8.21	27.71	PASS
	151/5755	5.62	6.87	6.23	7.48	10.20	27.71	PASS
	159/5795	5.83	7.08	6.71	7.96	10.55	27.71	PASS
802.11ac VHT80	138/5690	-6.83	-5.56	-5.11	-3.84	-1.61	27.71	PASS
	155/5775	-5.06	-3.79	-3.08	-1.81	0.32	27.71	PASS
802.11ax HE20	144/5720	6.29	6.56	7.17	7.44	10.03	27.71	PASS
	149/5745	7.74	8.01	8.28	8.55	11.30	27.71	PASS
	157/5785	7.74	8.01	8.73	9.00	11.54	27.71	PASS
	165/5825	7.86	8.13	9.15	9.42	11.83	27.71	PASS
802.11ax HE40	142/5710	3.36	3.63	3.65	3.92	6.79	27.71	PASS
	151/5755	1.45	1.72	3.43	3.70	5.83	27.71	PASS
	159/5795	1.69	1.96	4.12	4.39	6.35	27.71	PASS
802.11ax HE80	138/5690	-2.33	-2.06	-1.76	-1.49	1.24	27.71	PASS
	155/5775	-2.37	-2.10	-0.33	-0.06	2.05	27.71	PASS

Note: 1. PSD=Read Value+Duty cycle correction factor +10*log(500/470)

2. For Total PSD, according to KDB 662911 D01 Multiple Transmitter Output v02r01 2)a),

the power spectral density=$10\log(10^{(\text{PSD antenna 1 in dBm/10})}+10^{(\text{PSD antenna 2 in dBm/10})})$

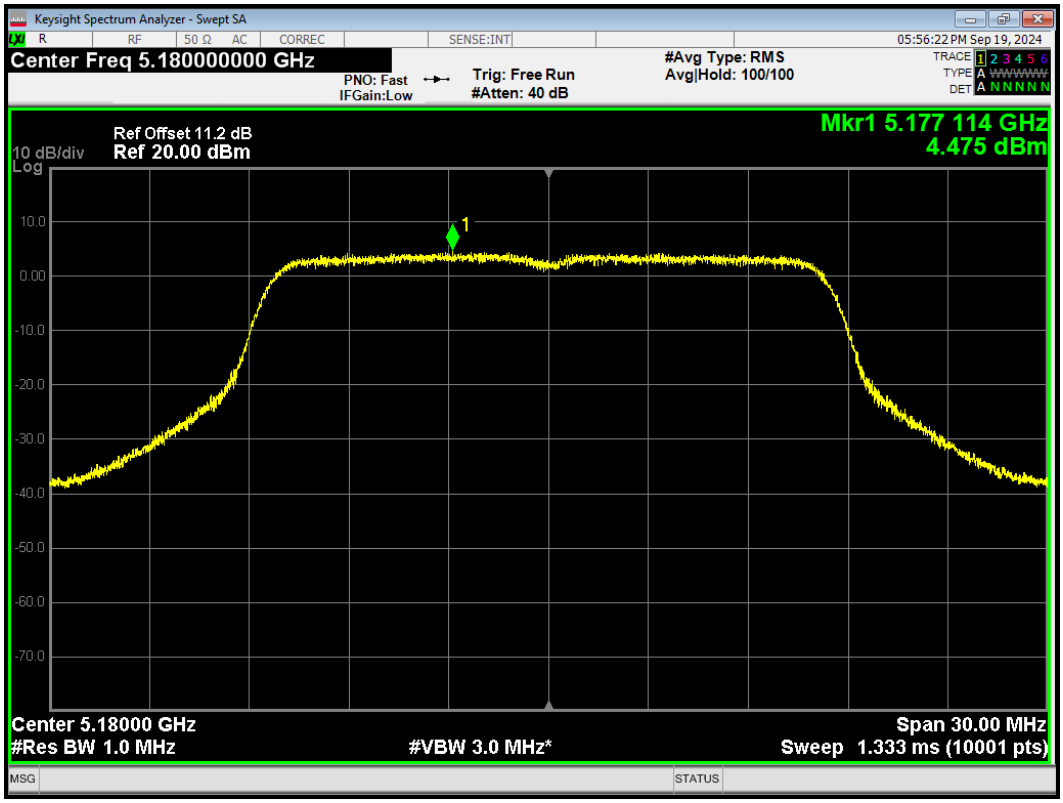
3. The manufacturer declared the transmitter output signals is CDD mode And Nss=1. Direction gain calculation according to KDB662911 D01 Multiple Transmitter Output v02r01 F)2)e)(i): If all antennas have the same gain, directional gain = $G_{ANT} + 10\log(N_{ANT}/Nss) = 5.28+10\log(2/1)= 8.29 >6$ dBi.

So the PSD limit is 30-(directional gain-6 dBi) =30-(8.29-6)= 27.71 dBm.

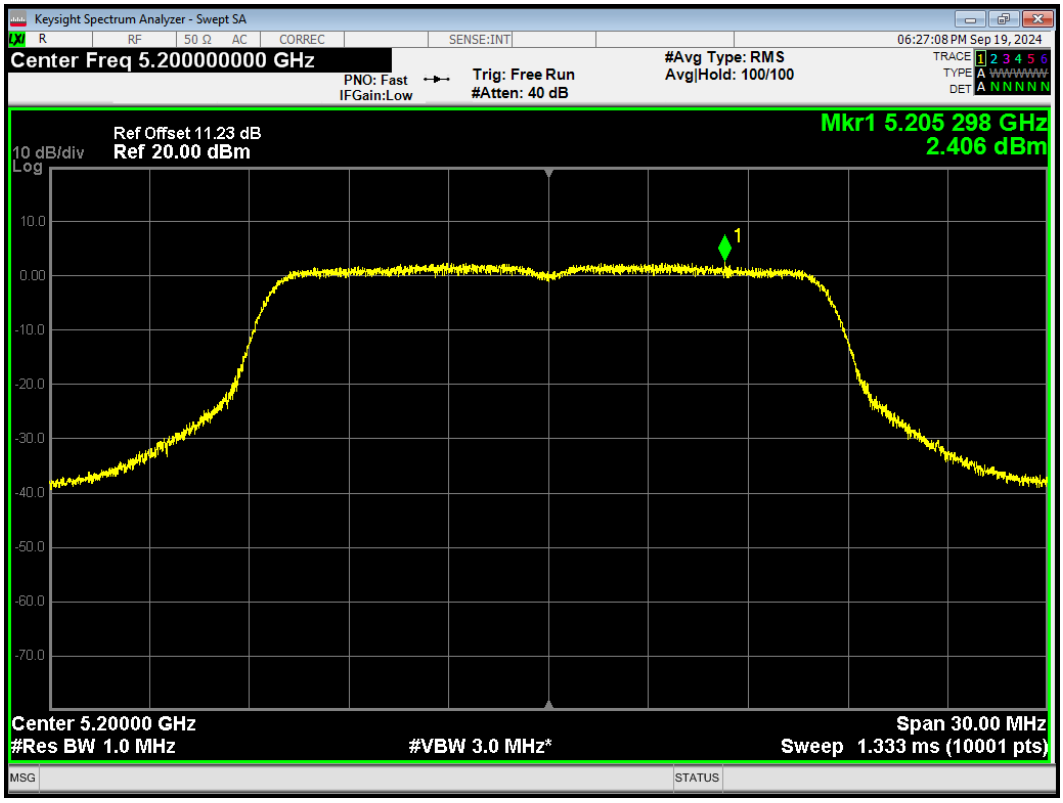
SISO Antenna 1

U-NII-1

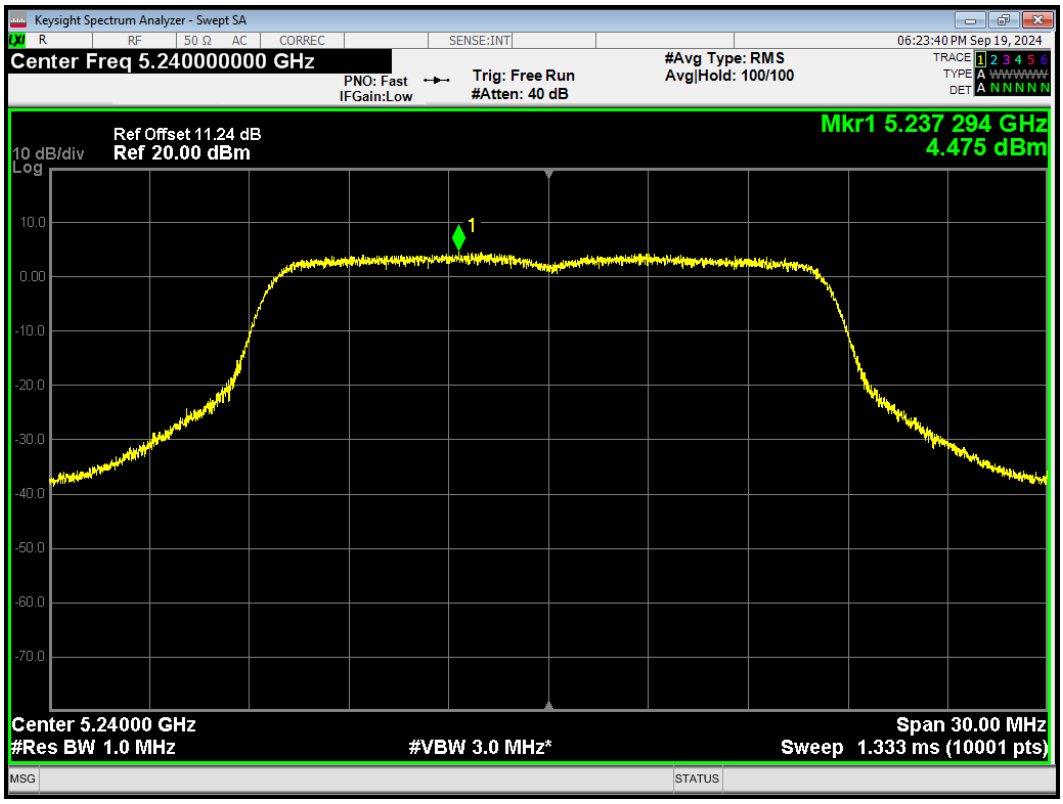
PSD 802.11a 5180MHz



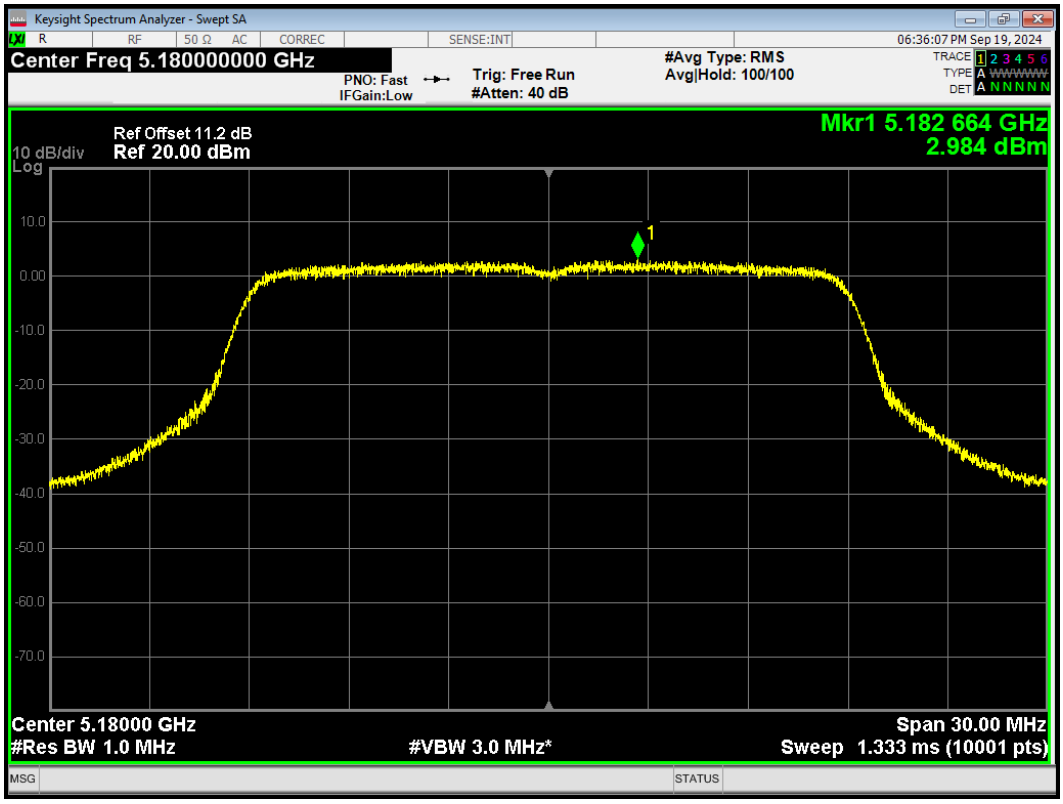
PSD 802.11a 5200MHz



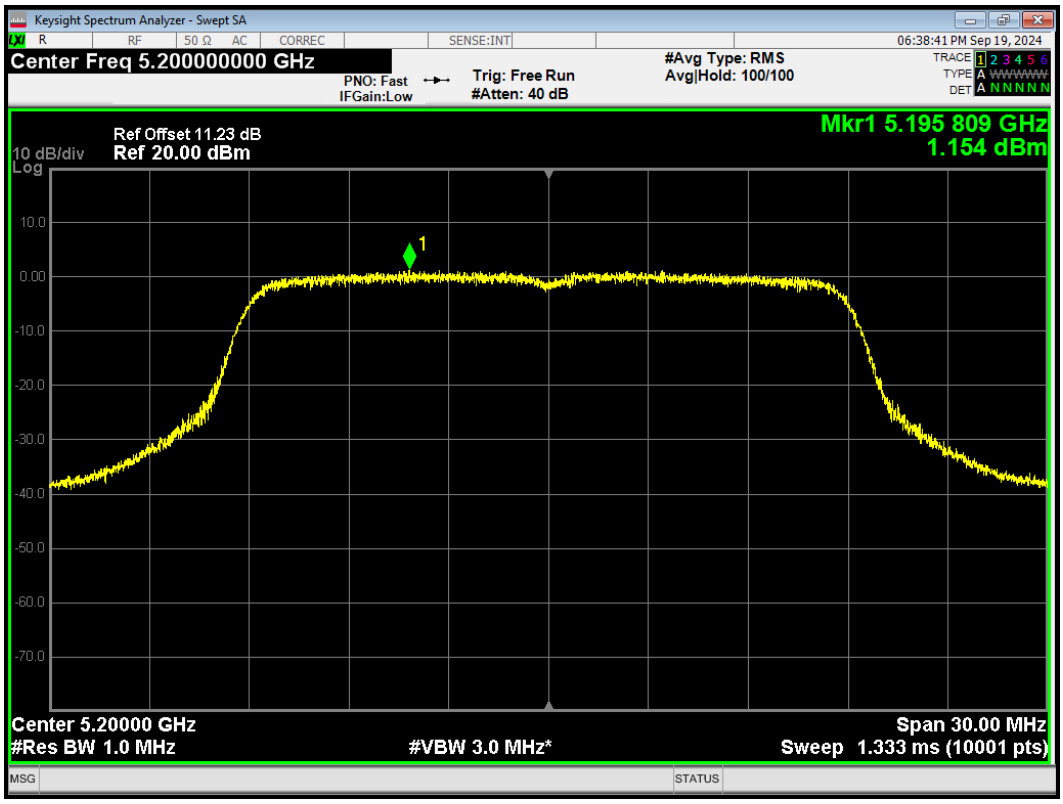
PSD 802.11a 5240MHz



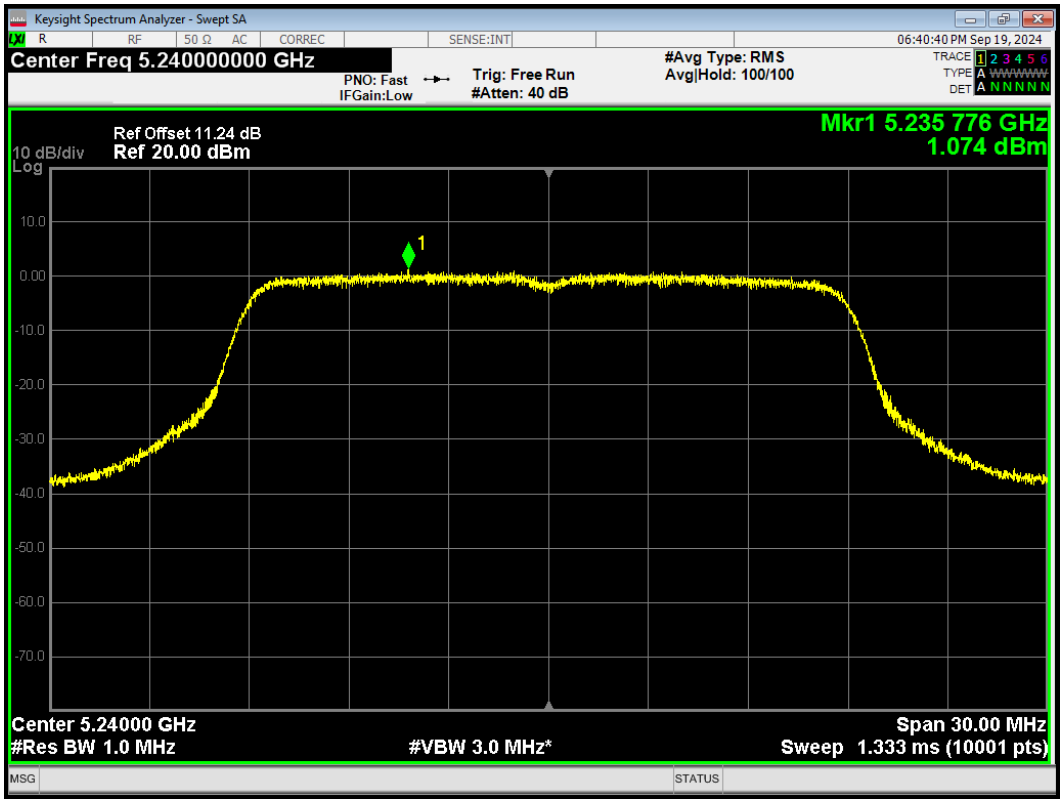
PSD 802.11ac(VHT20) 5180MHz



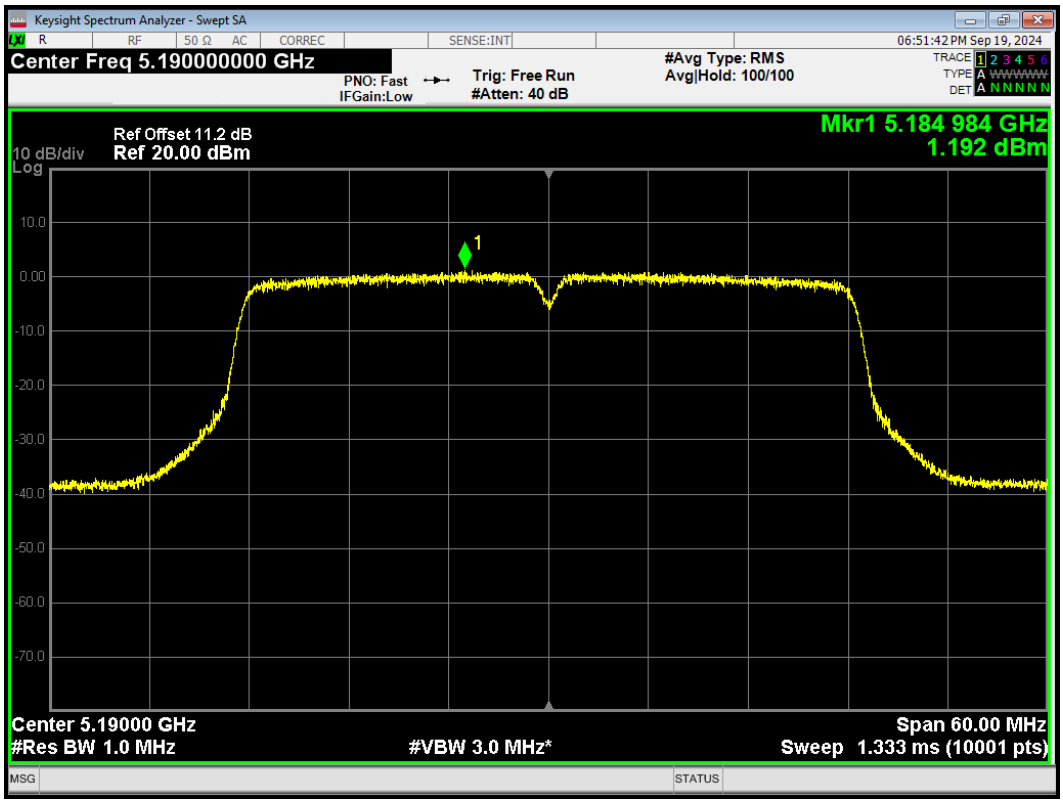
PSD 802.11ac(VHT20) 5200MHz



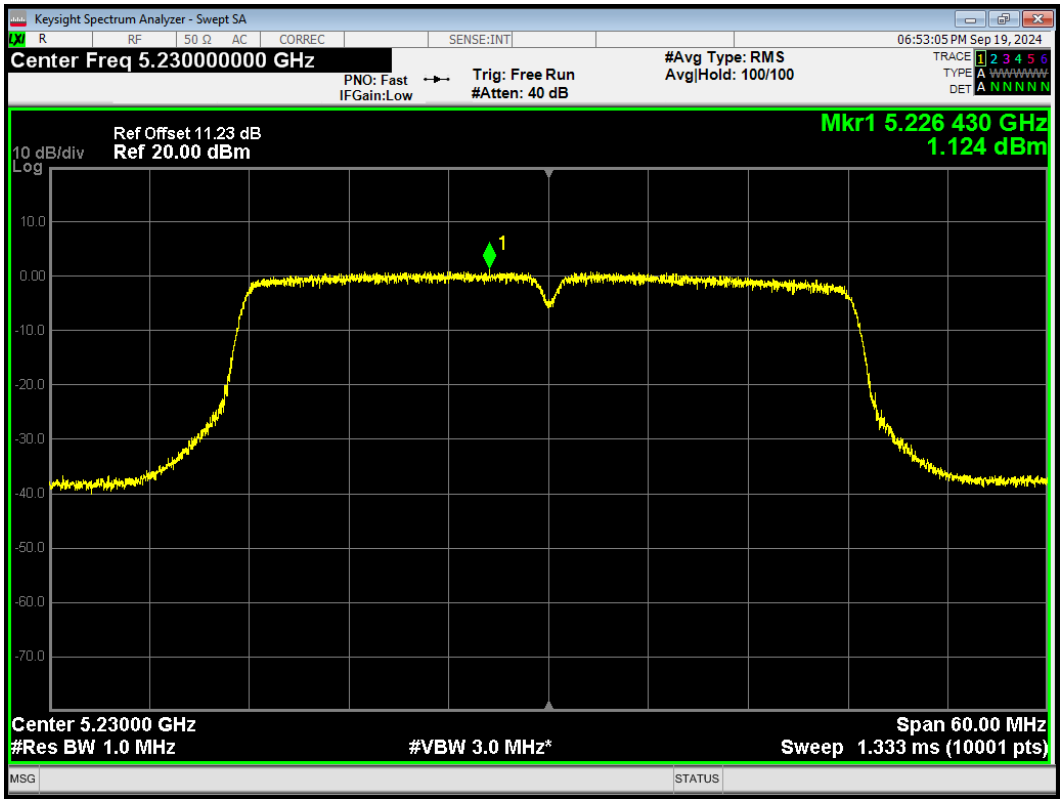
PSD 802.11ac(VHT20) 5240MHz



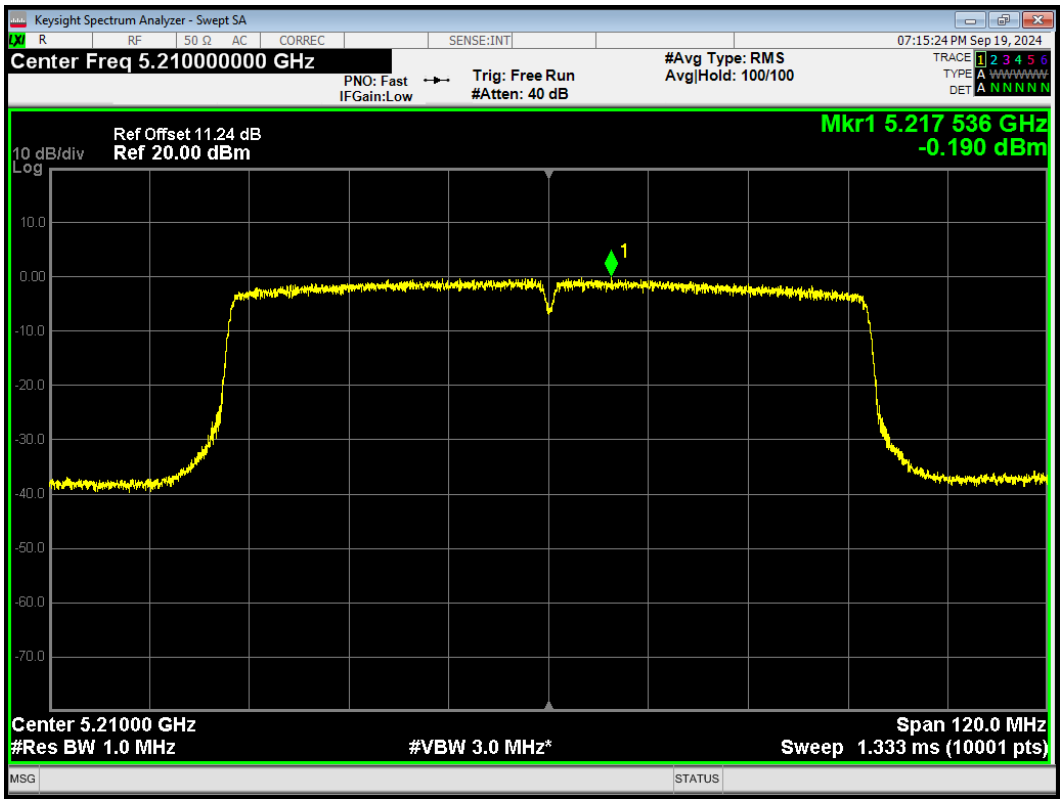
PSD 802.11ac(VHT40) 5190MHz



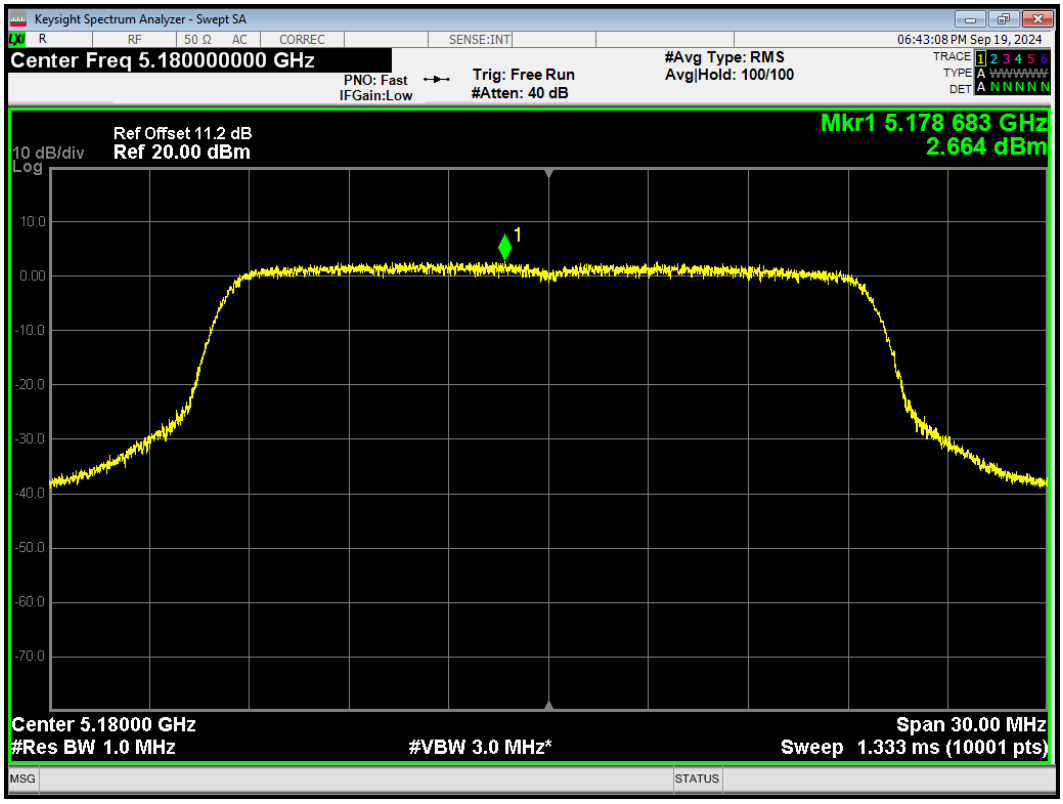
PSD 802.11ac(VHT40) 5230MHz



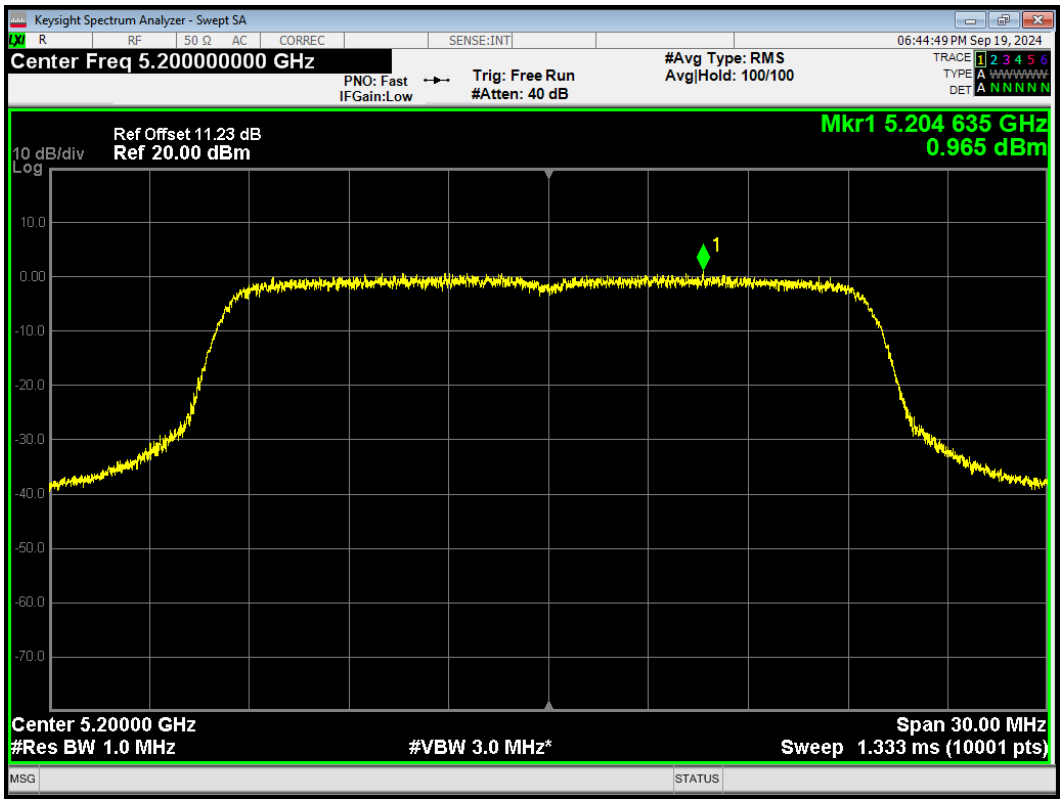
PSD 802.11ac(VHT80) 5210MHz



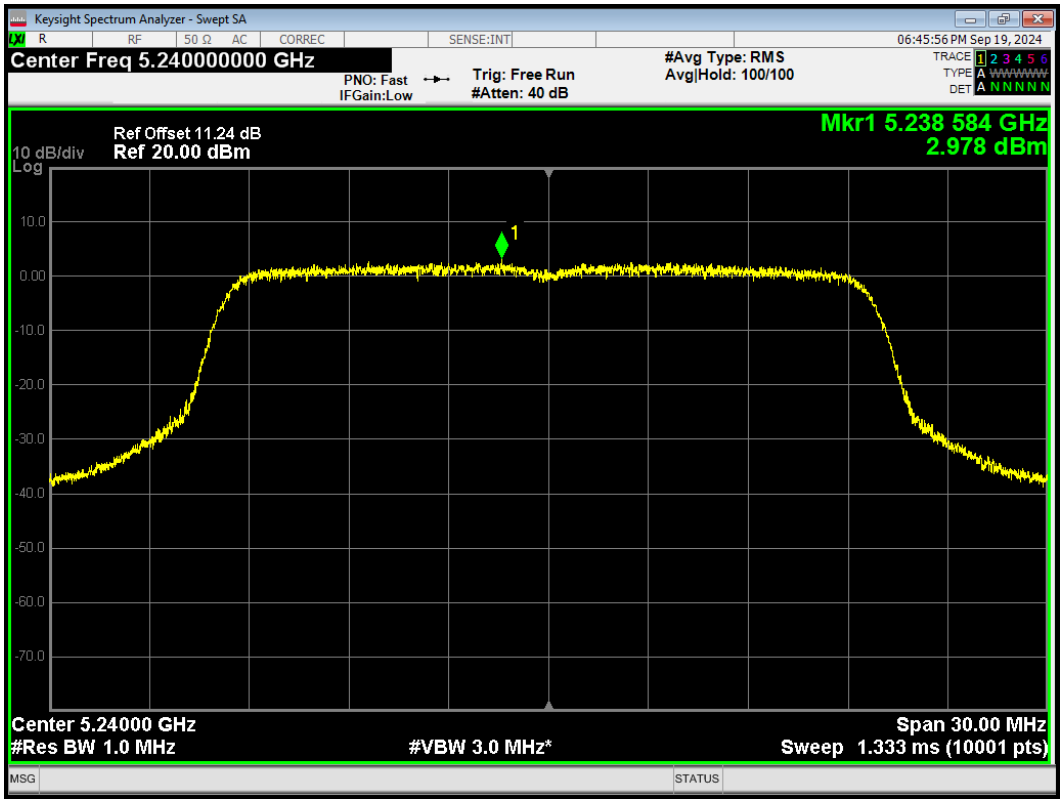
PSD 802.11ax(HE20) 5180MHz



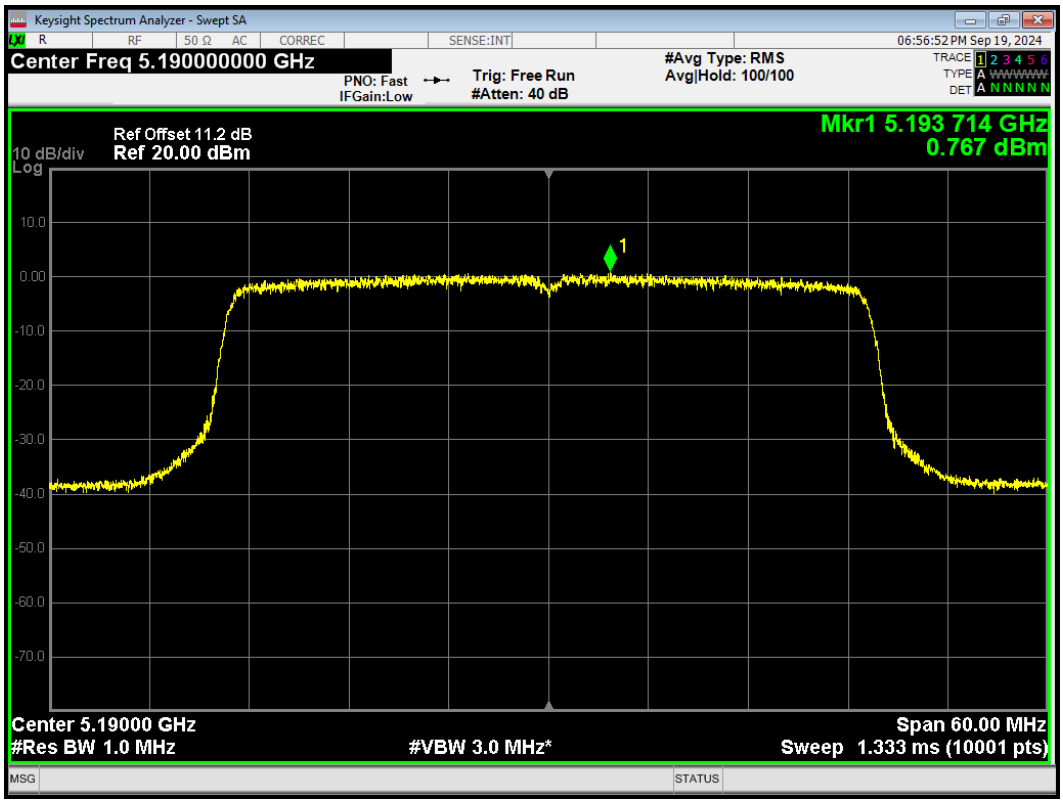
PSD 802.11ax(HE20) 5200MHz



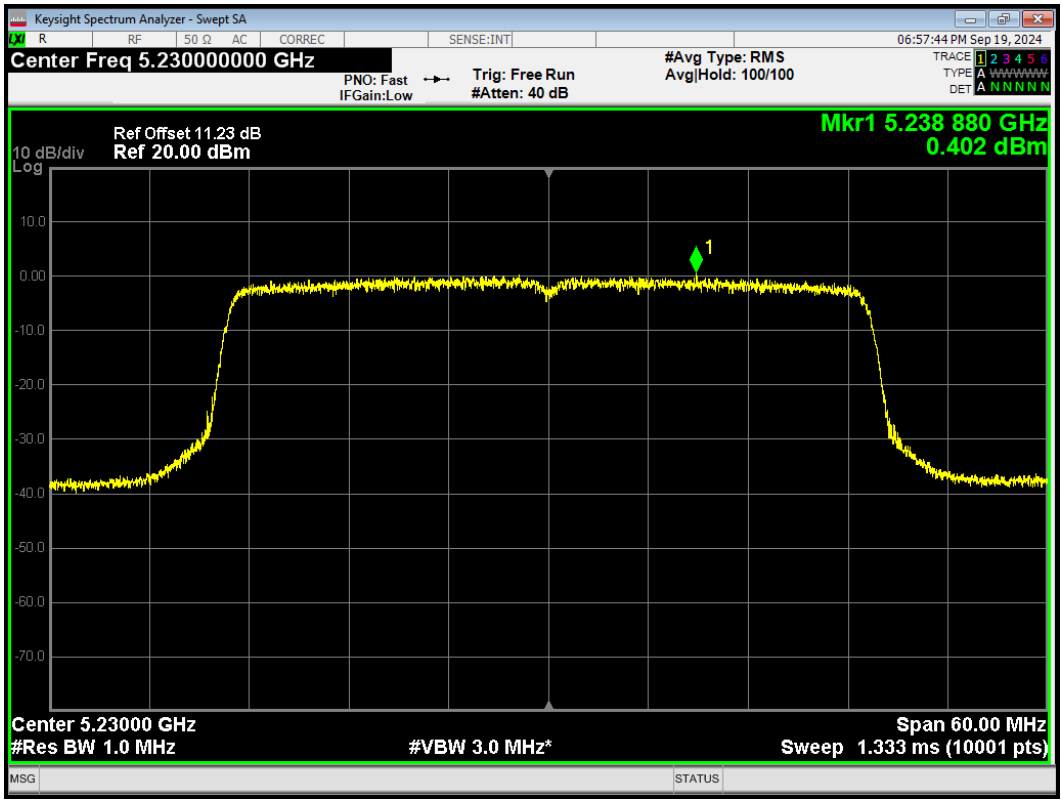
PSD 802.11ax(HE20) 5240MHz



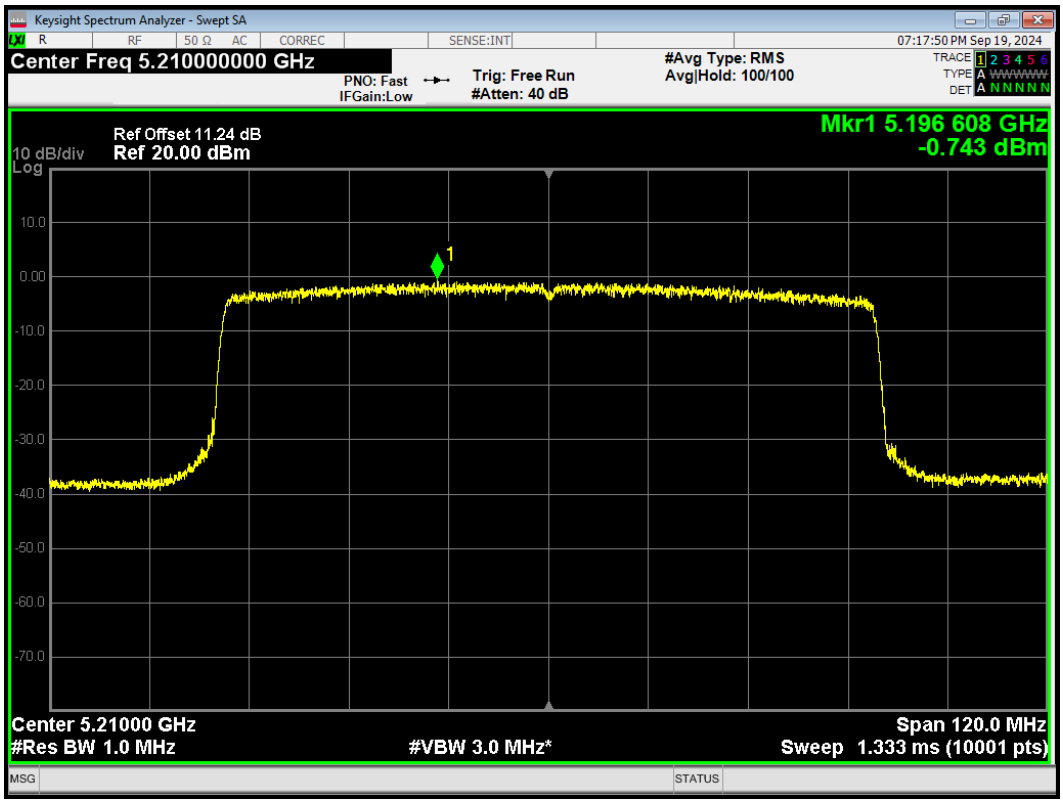
PSD 802.11ax(HE40) 5190MHz



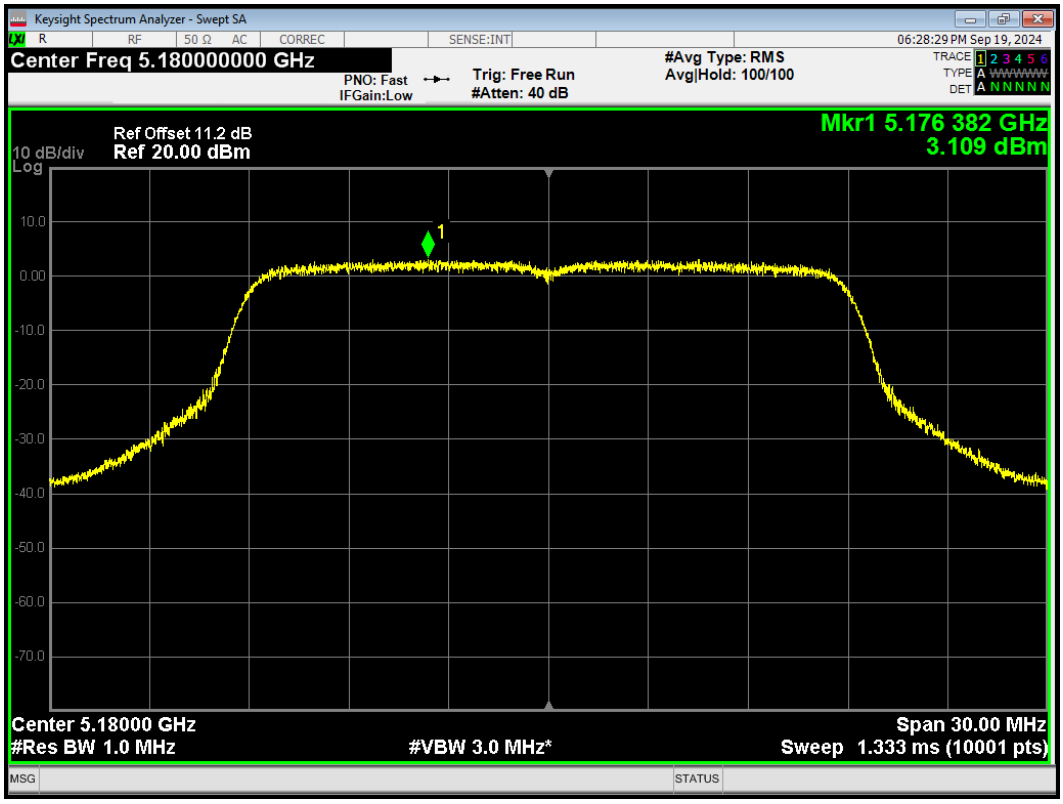
PSD 802.11ax(HE40) 5230MHz



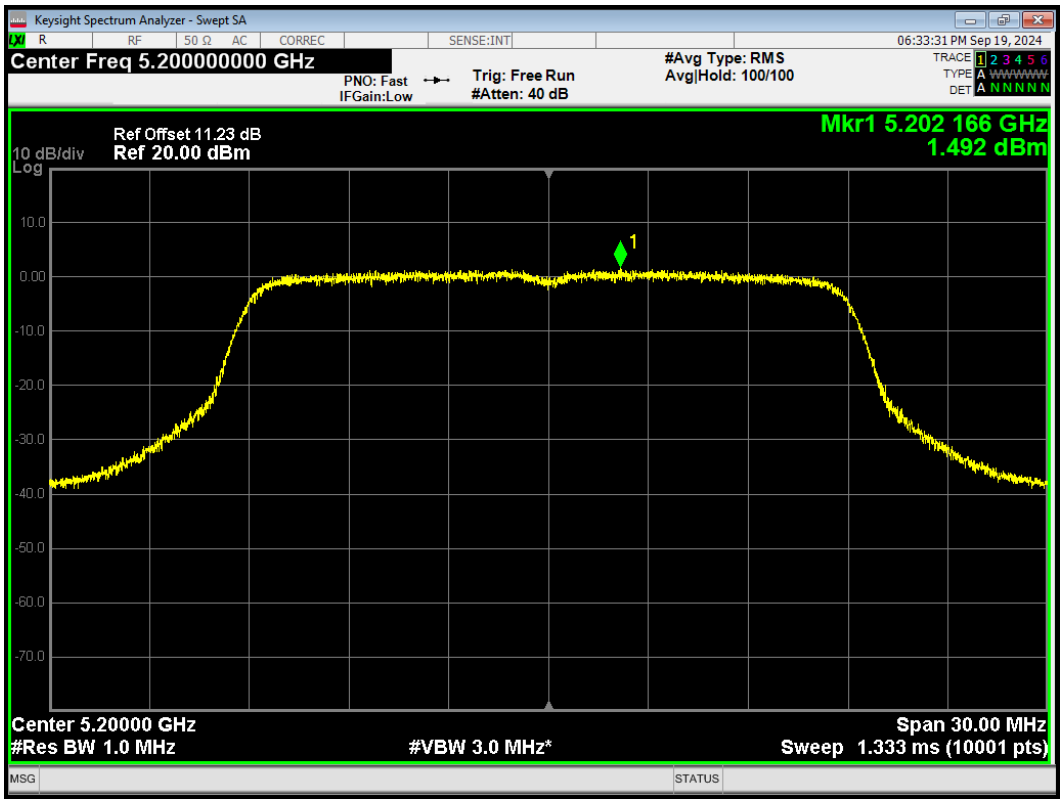
PSD 802.11ax(HE80) 5210MHz



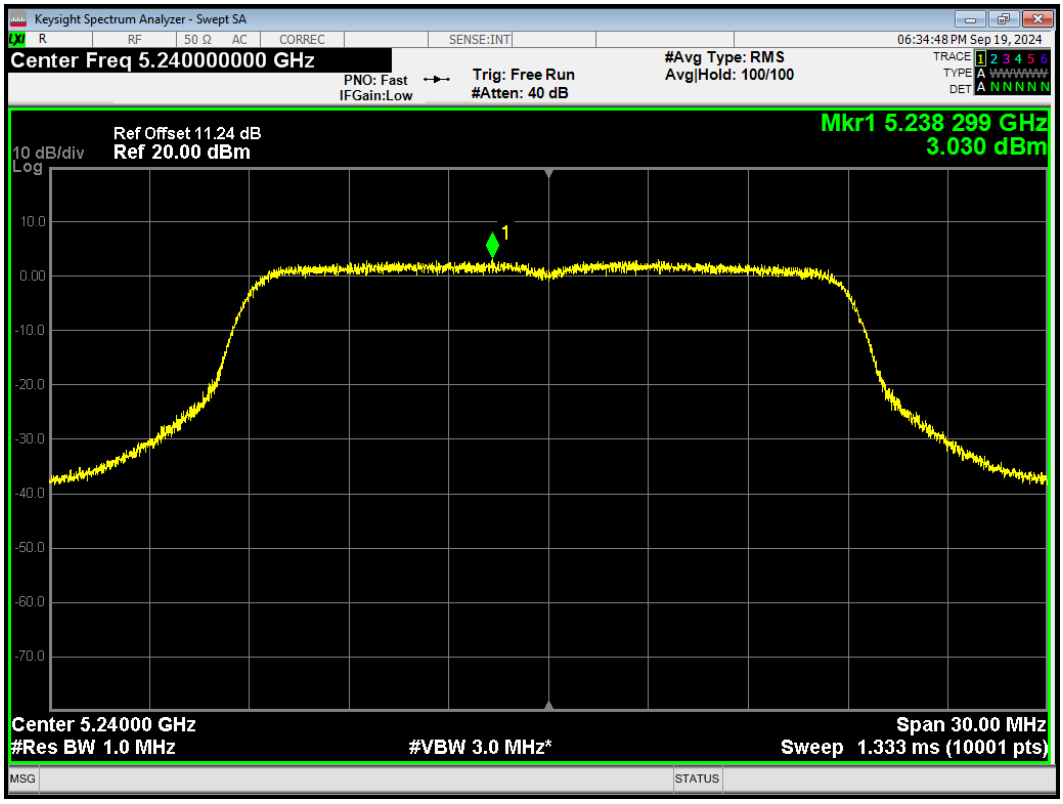
PSD 802.11n(HT20) 5180MHz



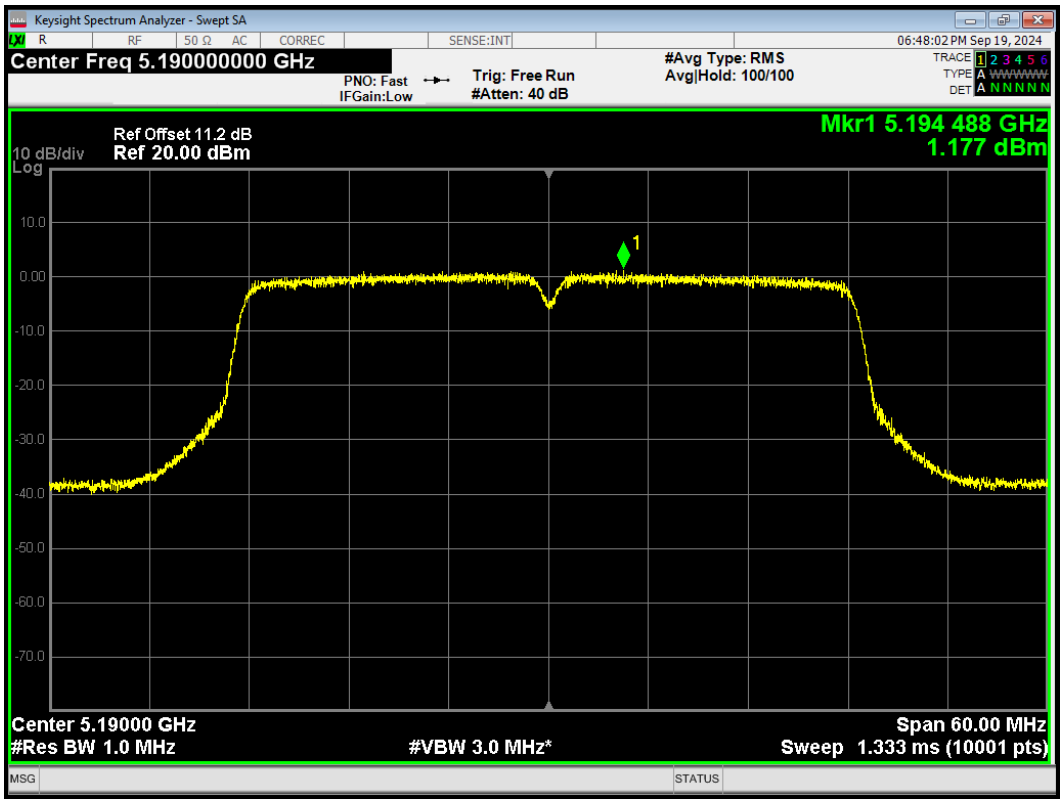
PSD 802.11n(HT20) 5200MHz



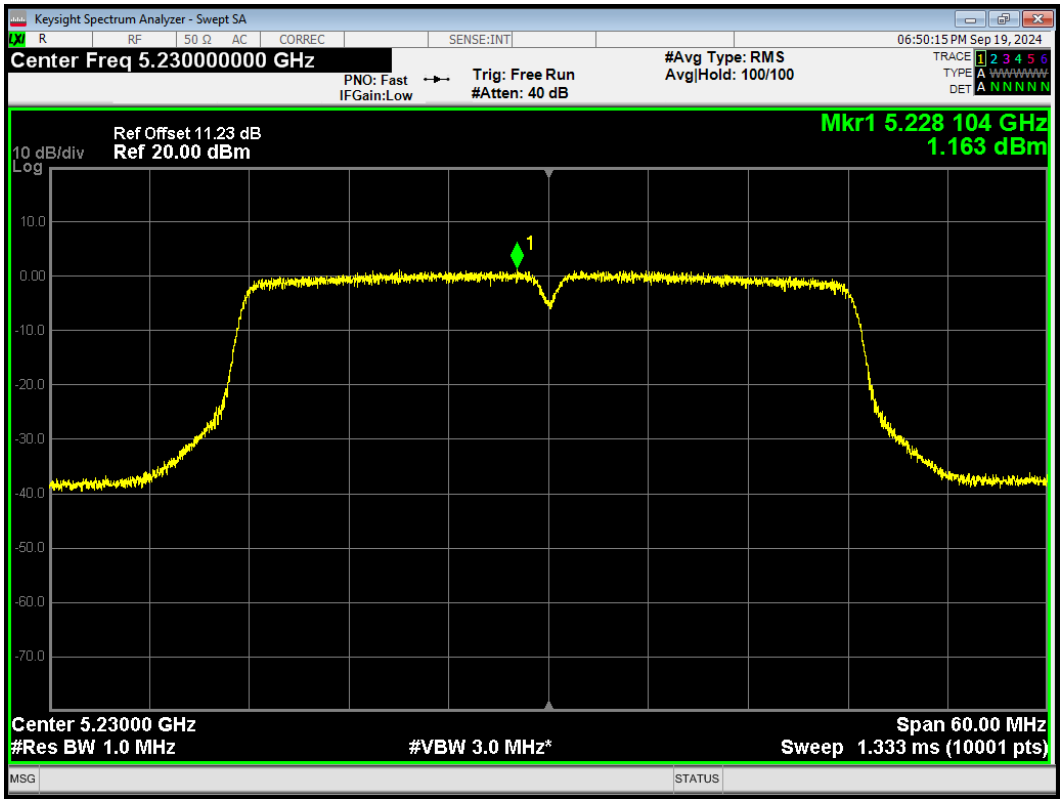
PSD 802.11n(HT20) 5240MHz



PSD 802.11n(HT40) 5190MHz

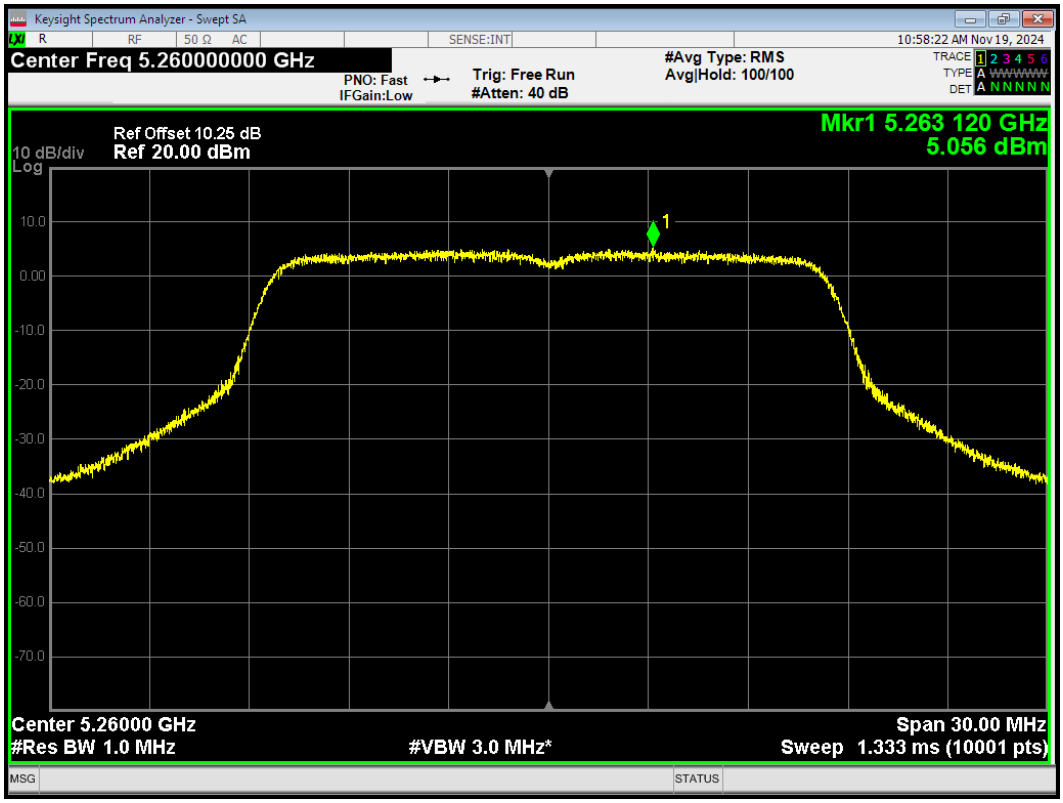


PSD 802.11n(HT40) 5230MHz

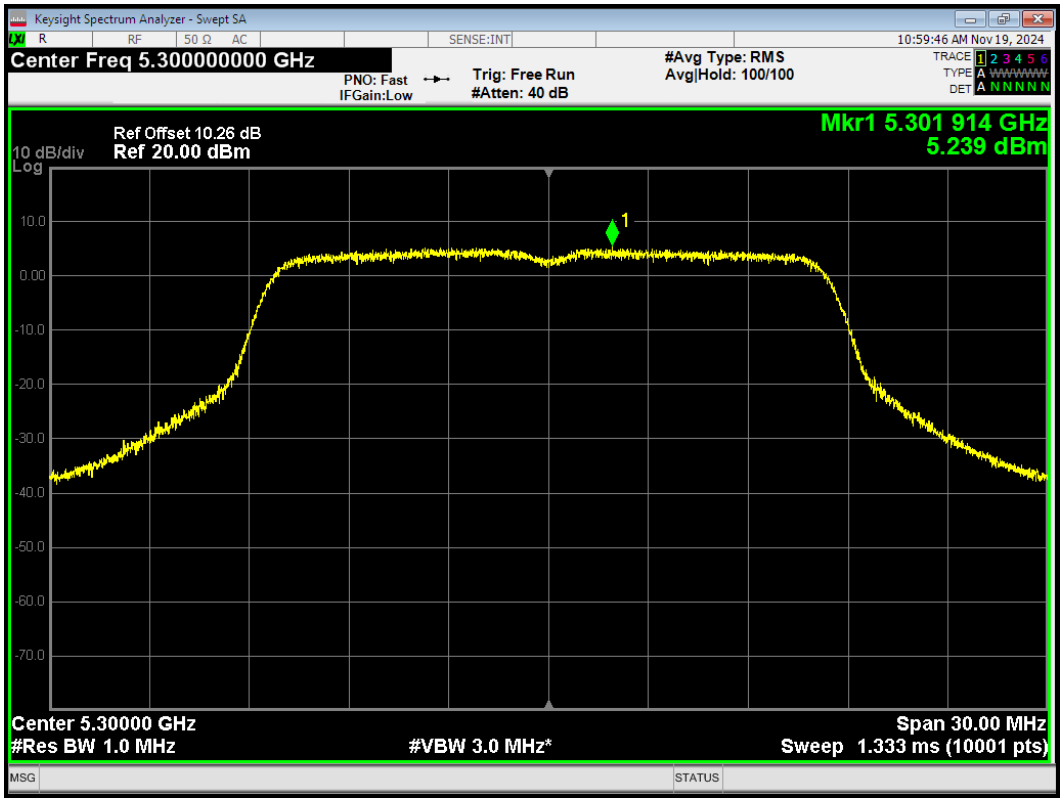


U-NII-2A

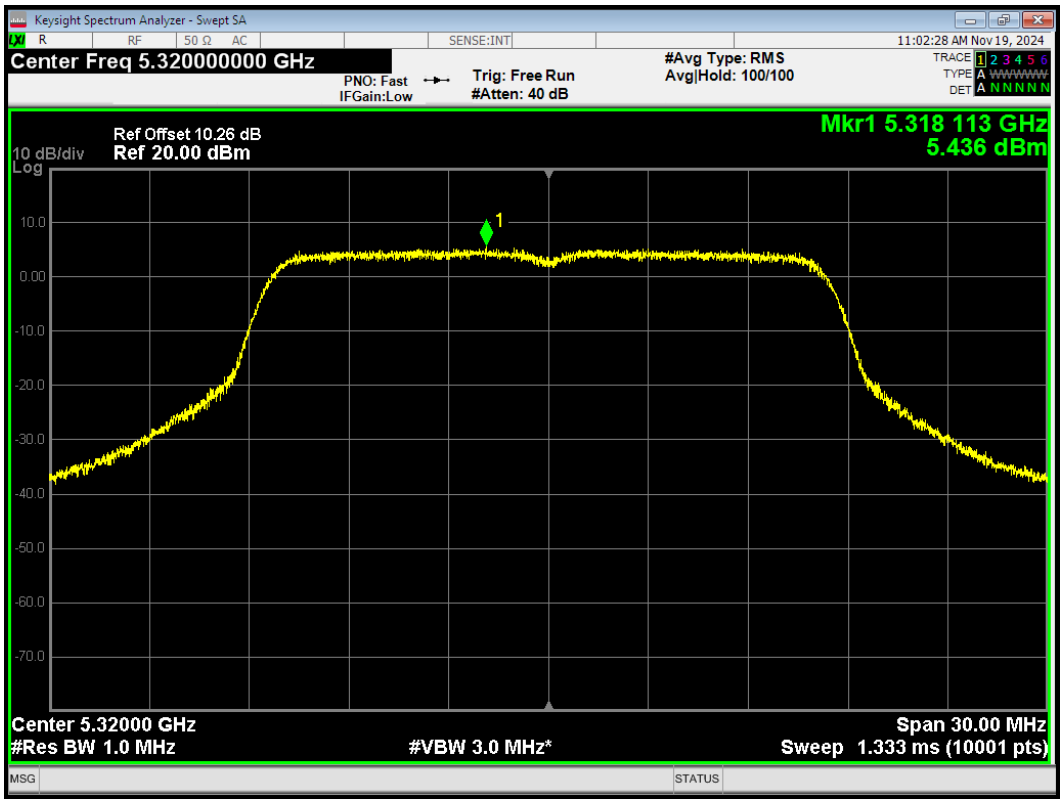
PSD 802.11a 5260MHz



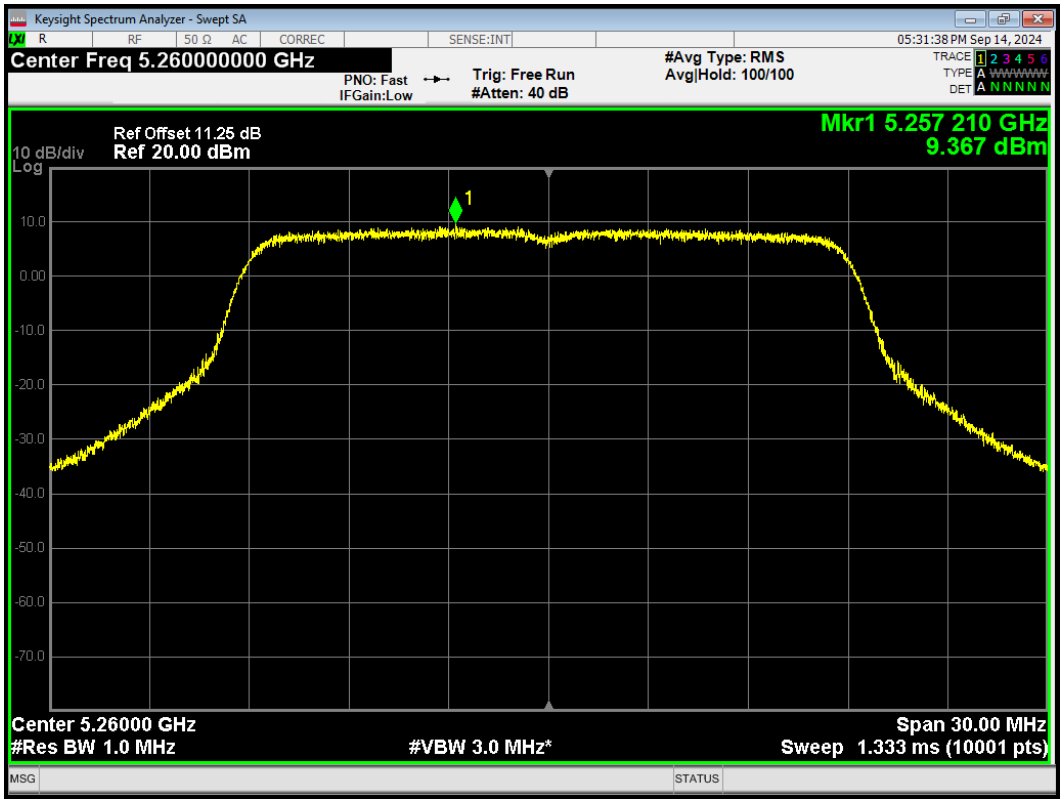
PSD 802.11a 5300MHz



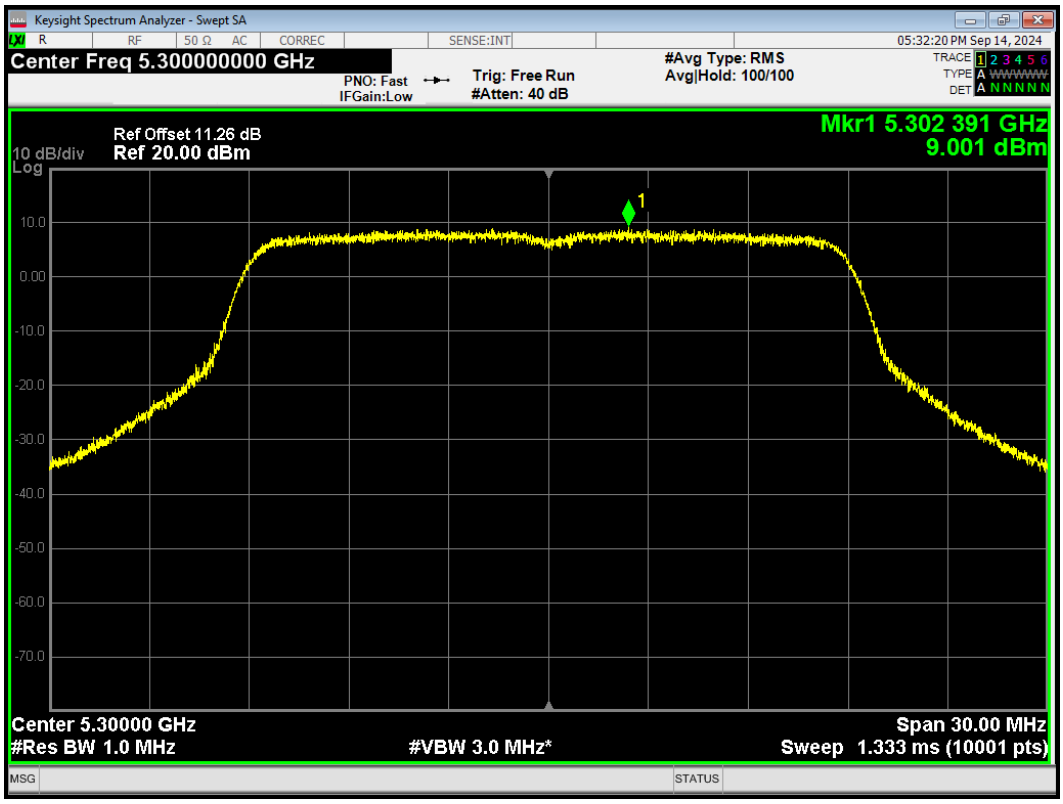
PSD 802.11a 5320MHz



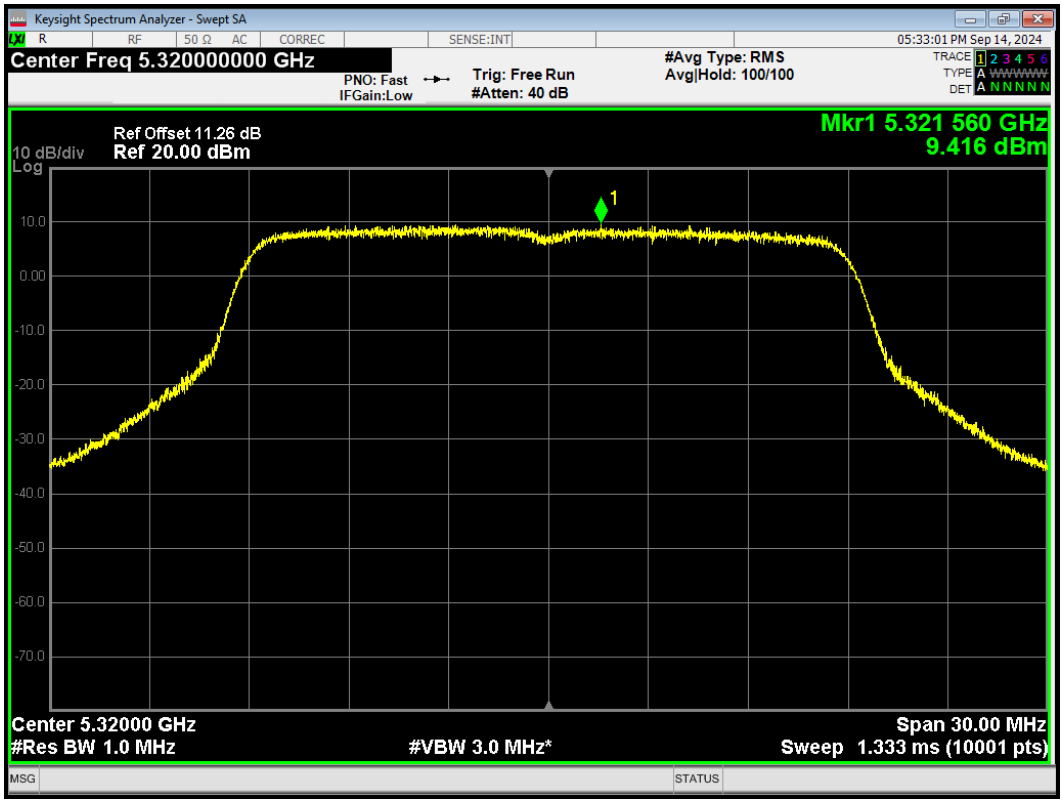
PSD 802.11ac(VHT20) 5260MHz



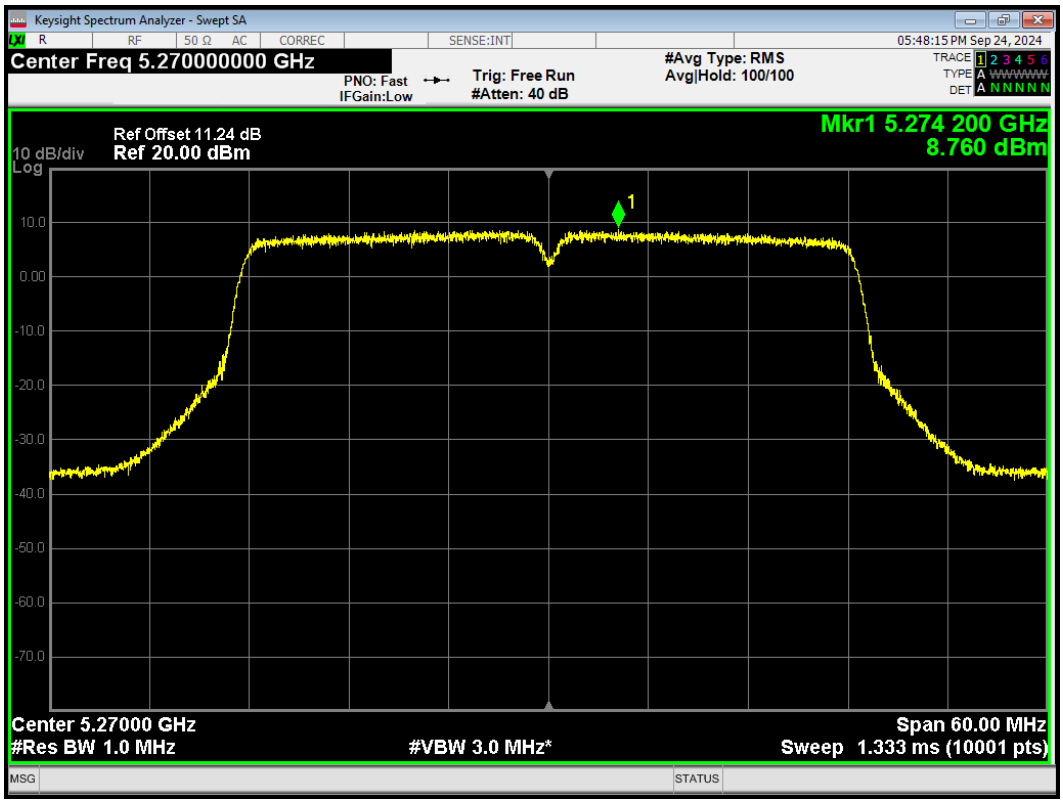
PSD 802.11ac(VHT20) 5300MHz



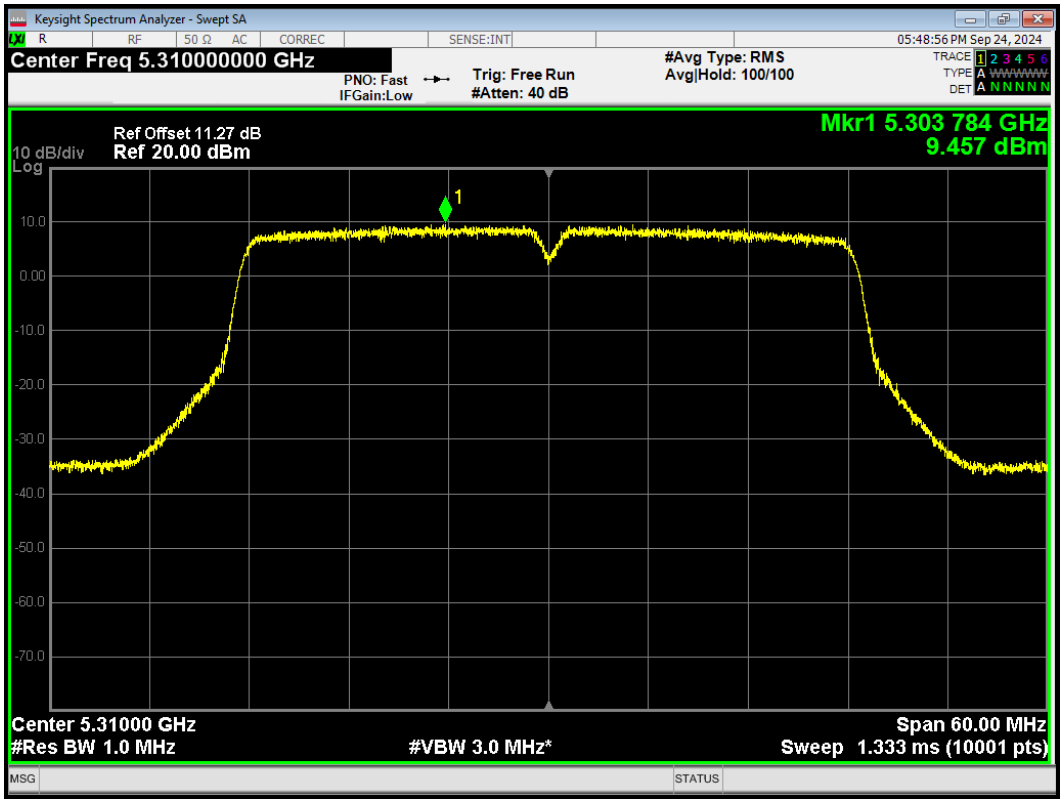
PSD 802.11ac(VHT20) 5320MHz



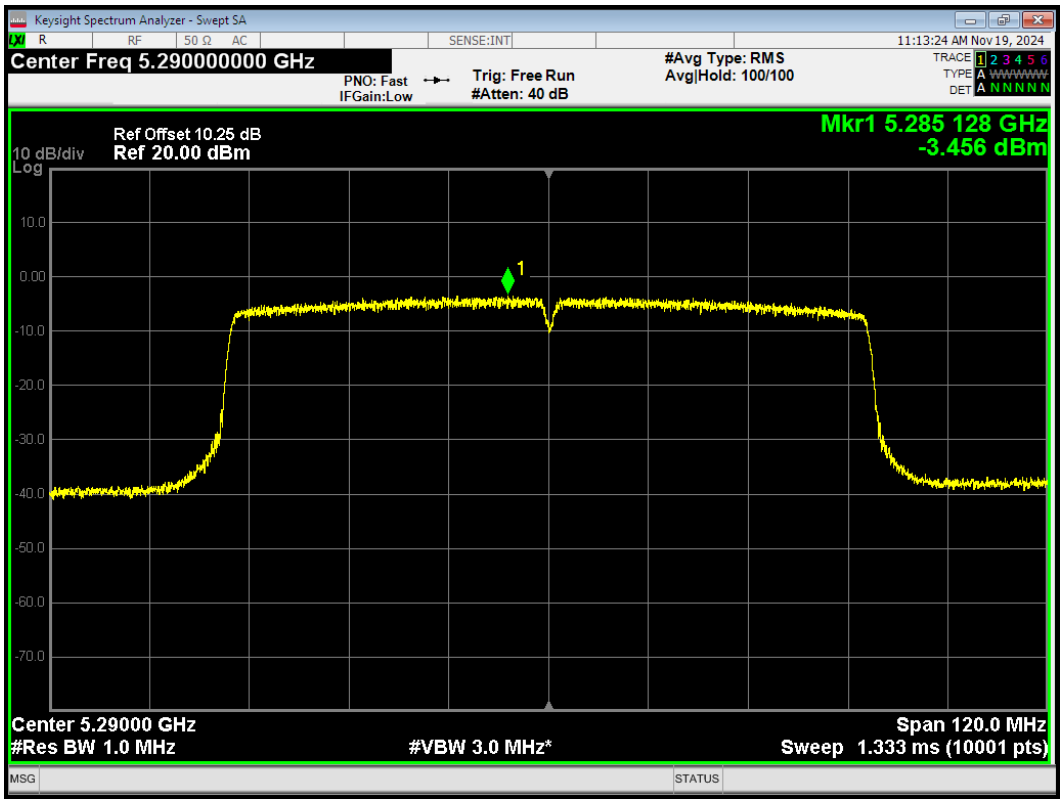
PSD 802.11ac(VHT40) 5270MHz



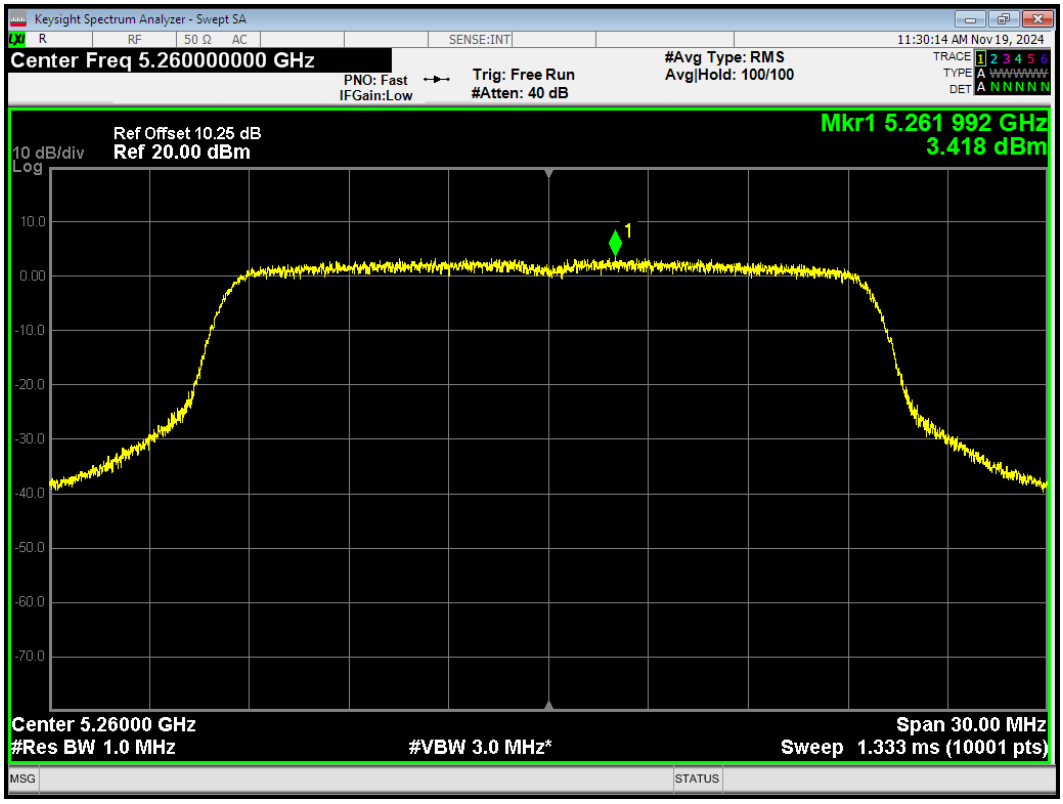
PSD 802.11ac(VHT40) 5310MHz



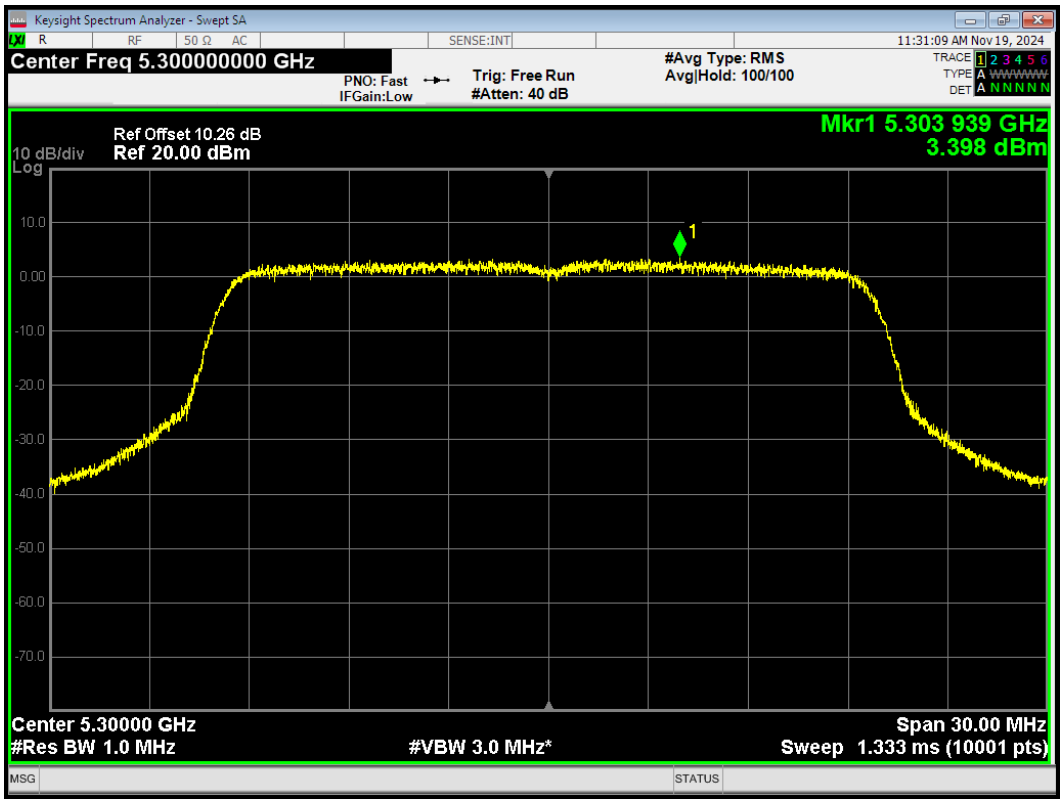
PSD 802.11ac(VHT80) 5290MHz



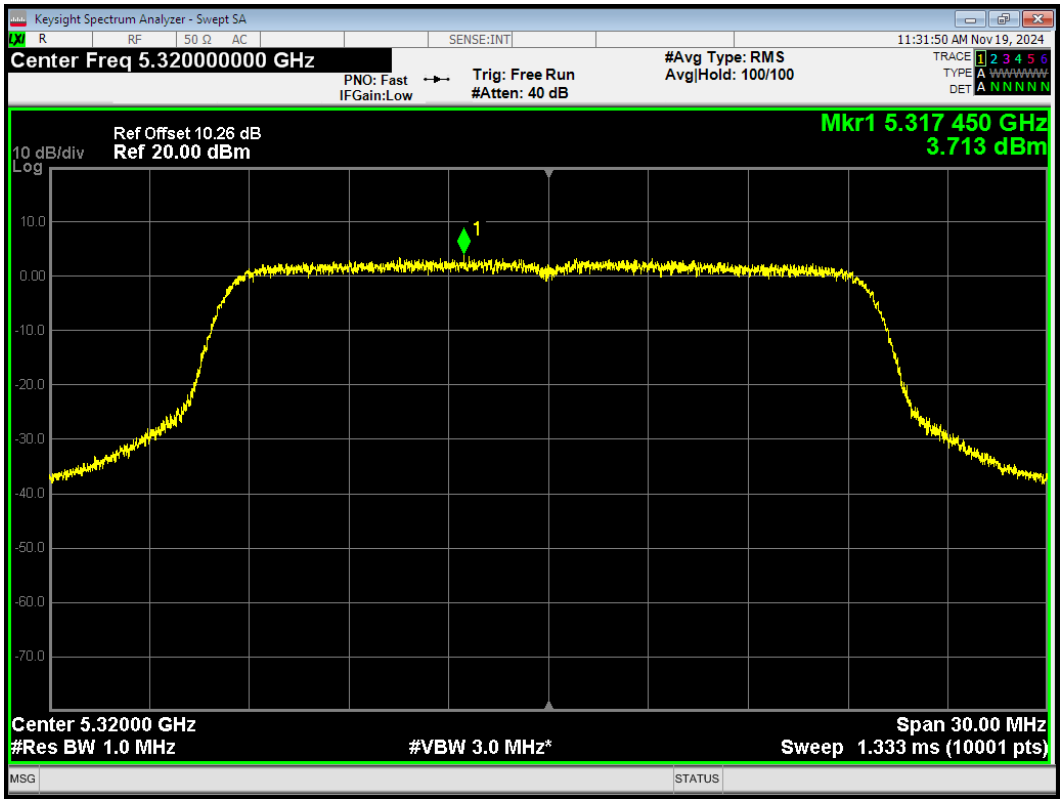
PSD 802.11ax(HE20) 5260MHz



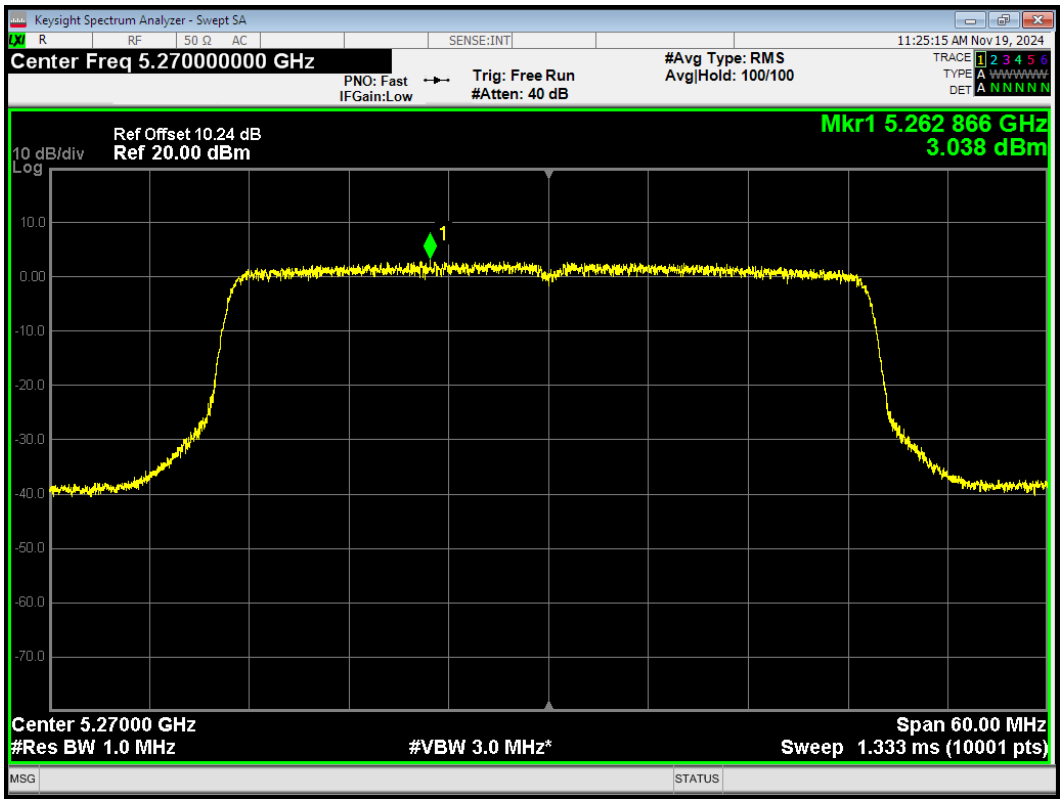
PSD 802.11ax(HE20) 5300MHz



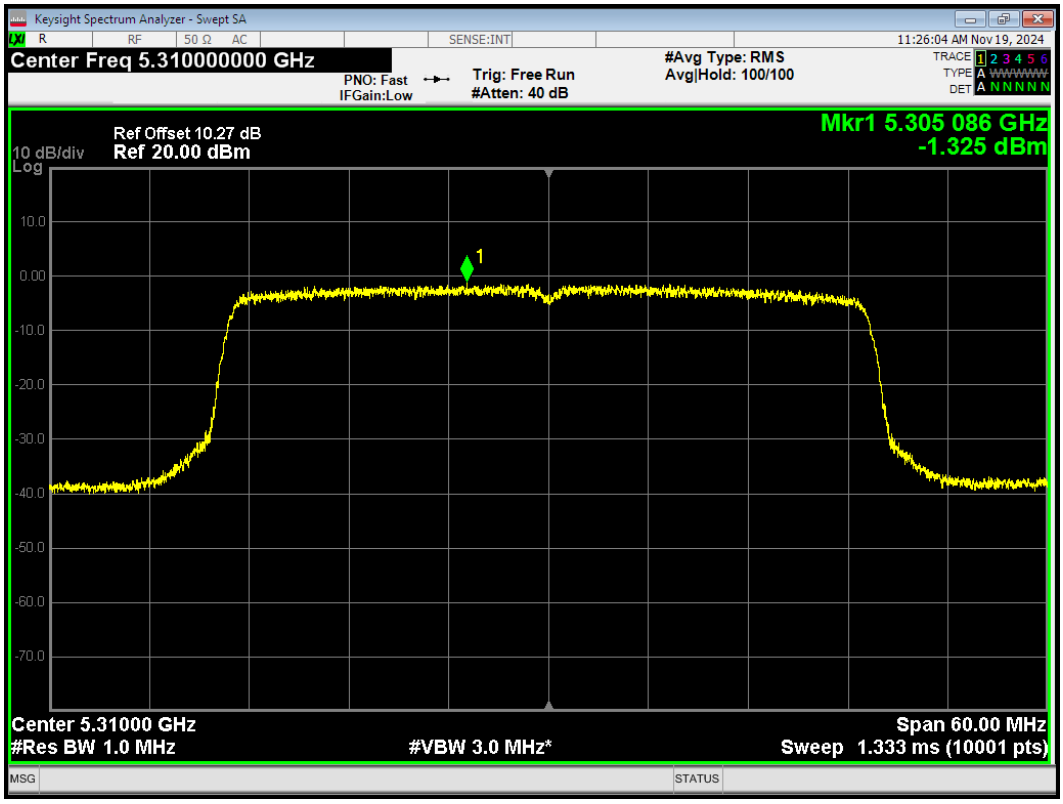
PSD 802.11ax(HE20) 5320MHz



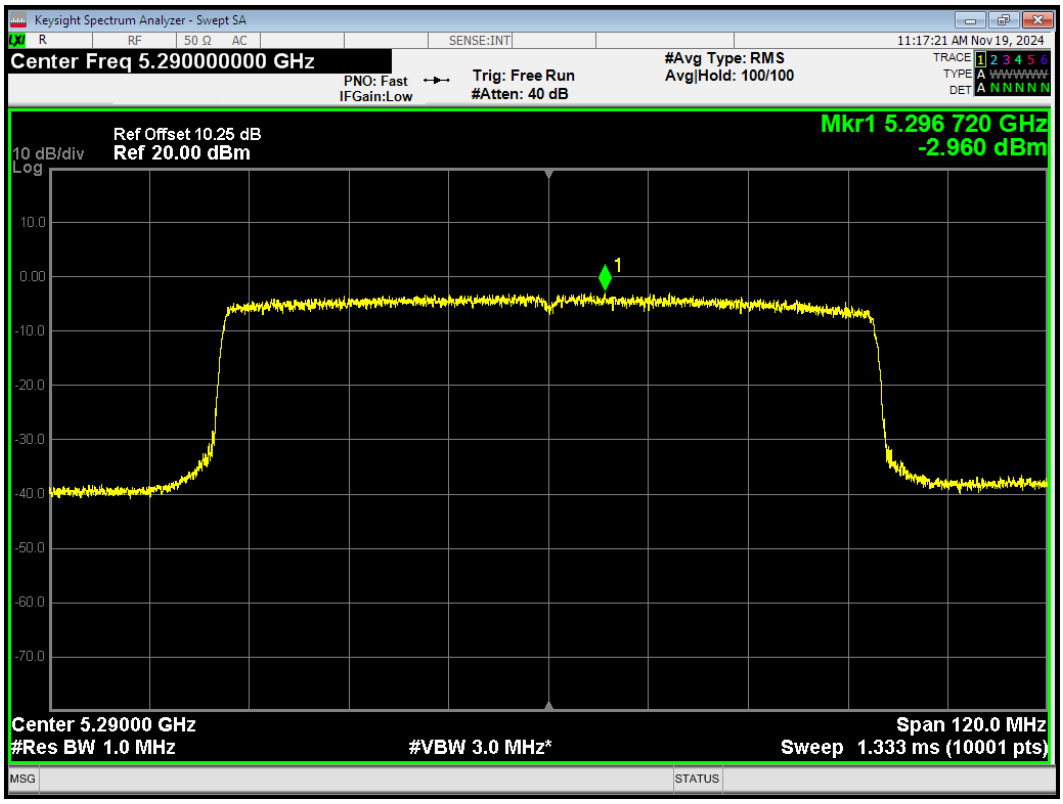
PSD 802.11ax(HE40) 5270MHz



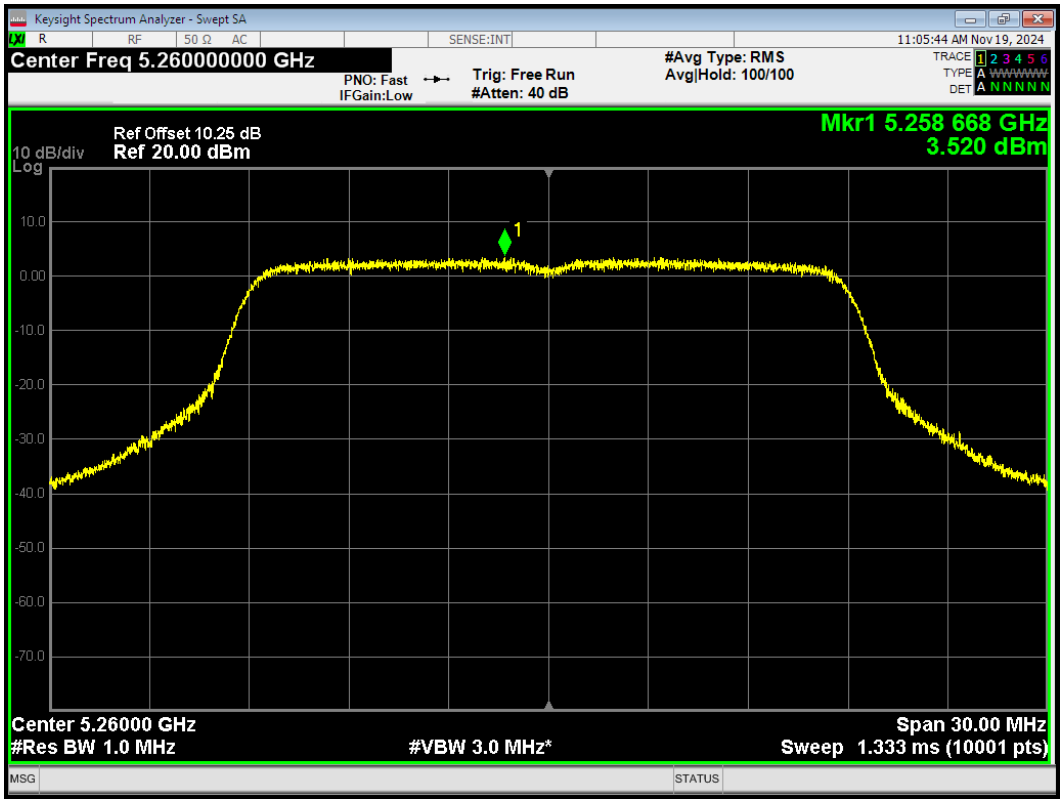
PSD 802.11ax(HE40) 5310MHz



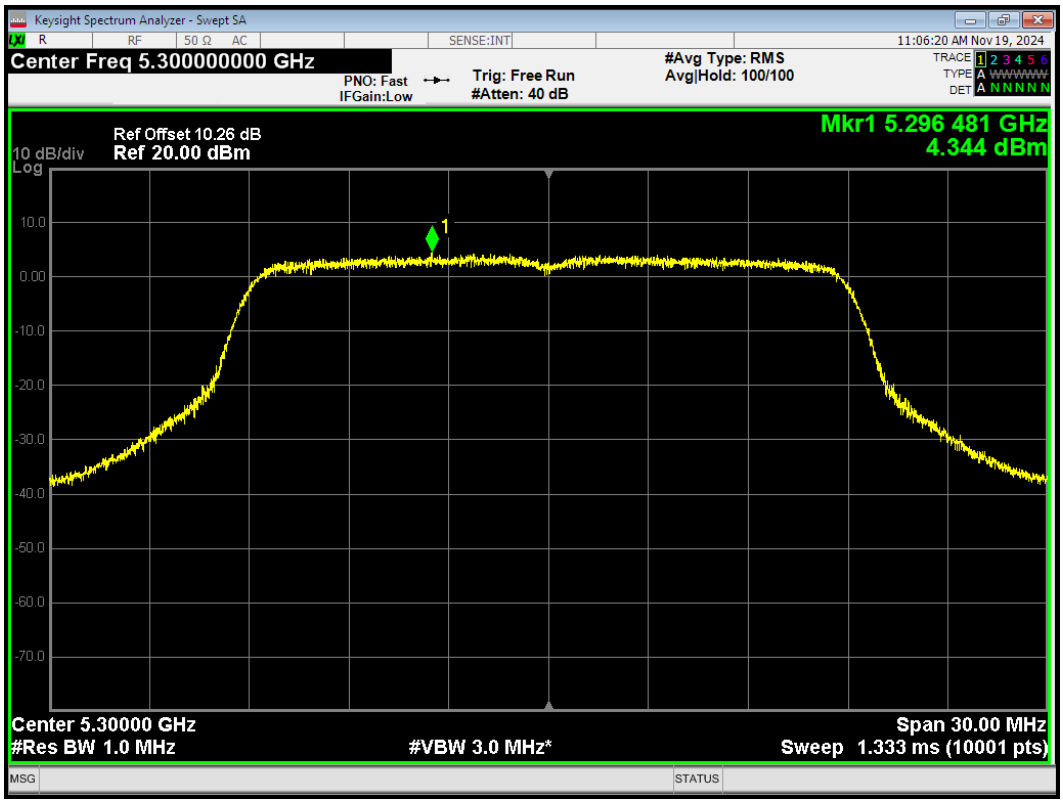
PSD 802.11ax(HE80) 5290MHz



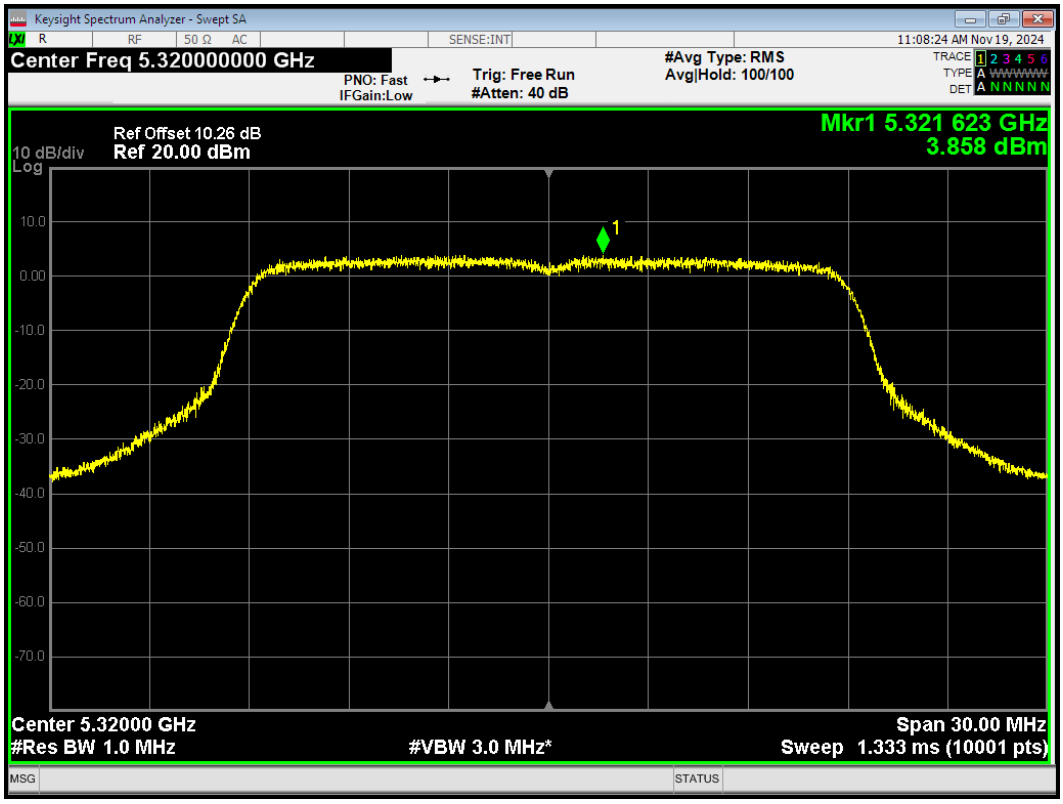
PSD 802.11n(HT20) 5260MHz



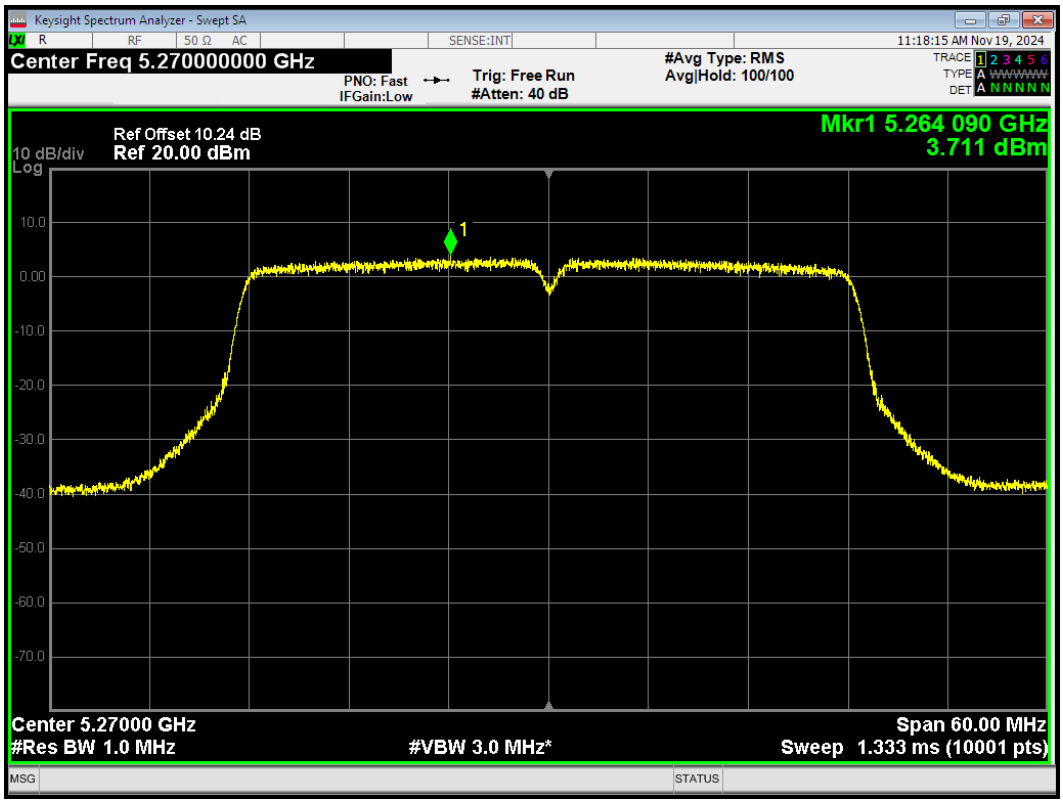
PSD 802.11n(HT20) 5300MHz



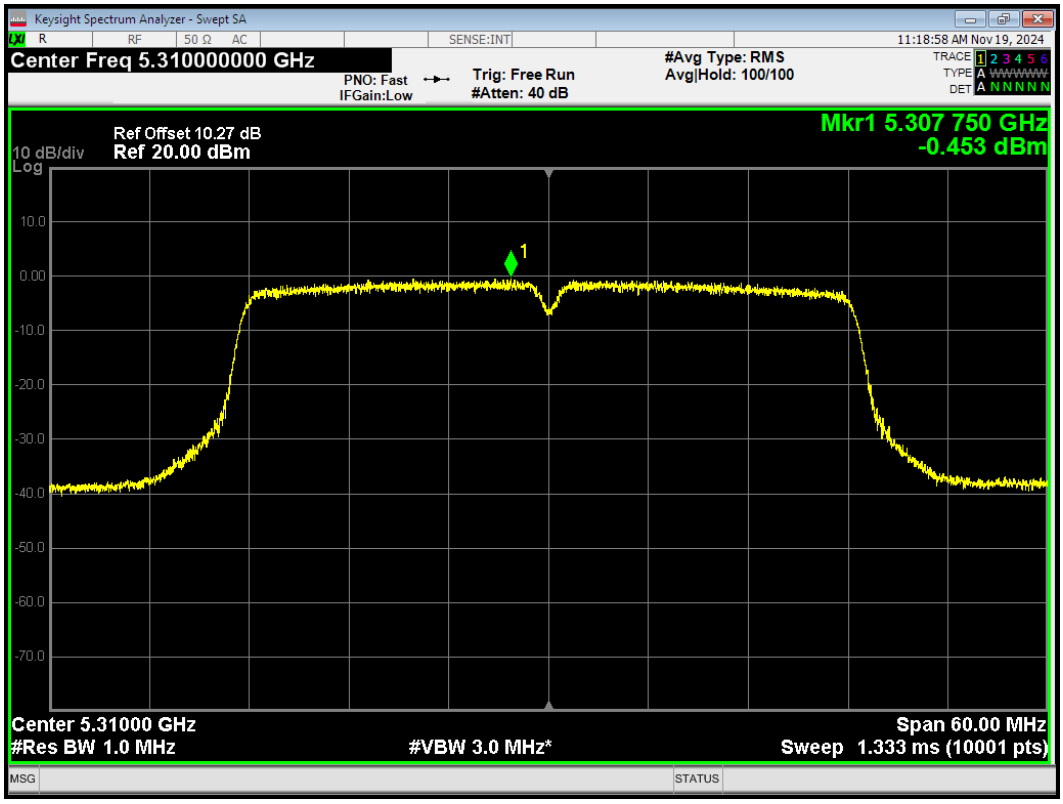
PSD 802.11n(HT20) 5320MHz



PSD 802.11n(HT40) 5270MHz

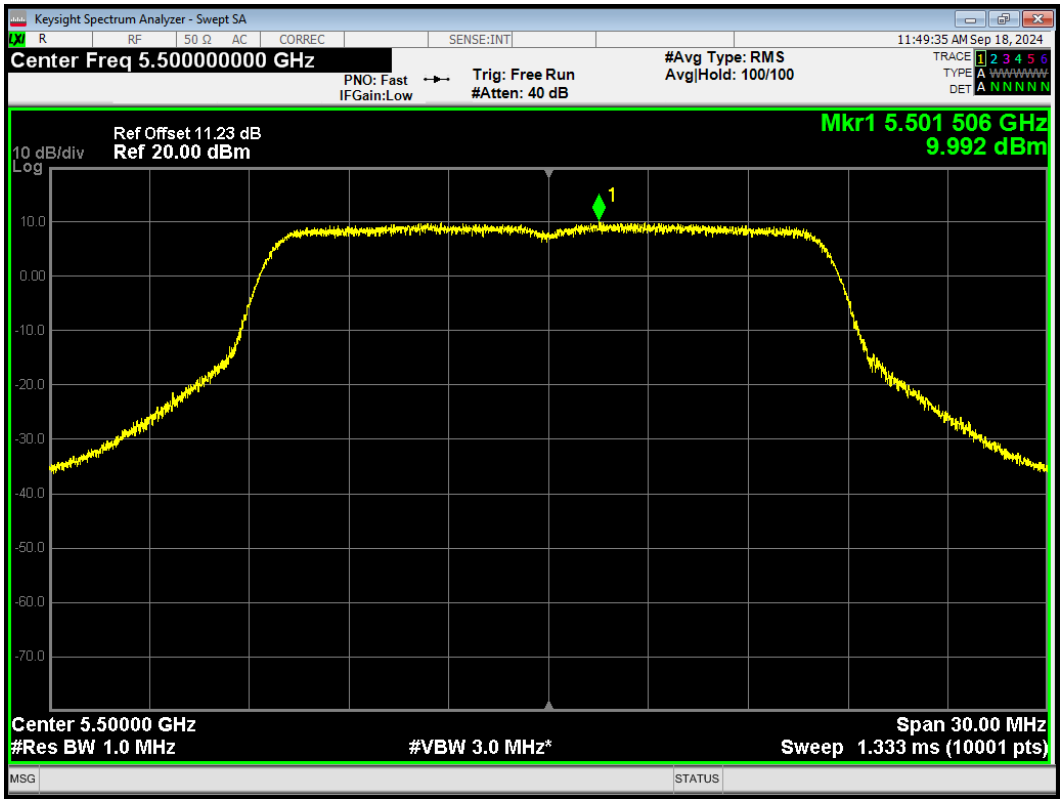


PSD 802.11n(HT40) 5310MHz

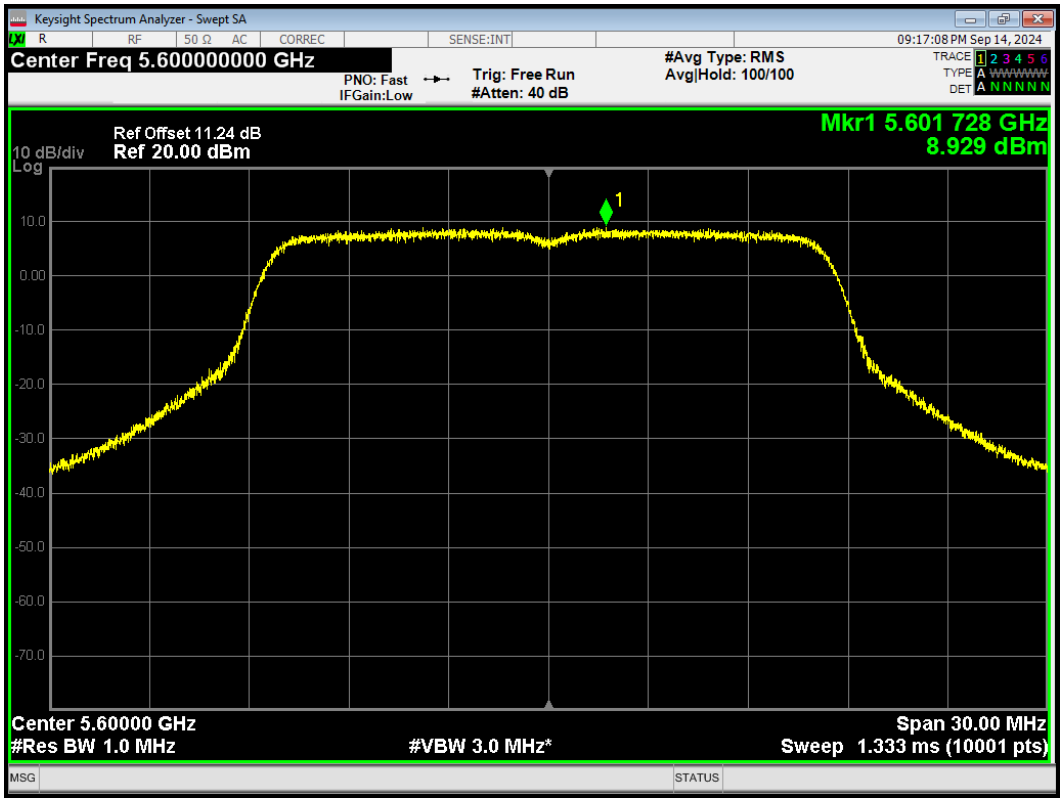


U-NII-2C

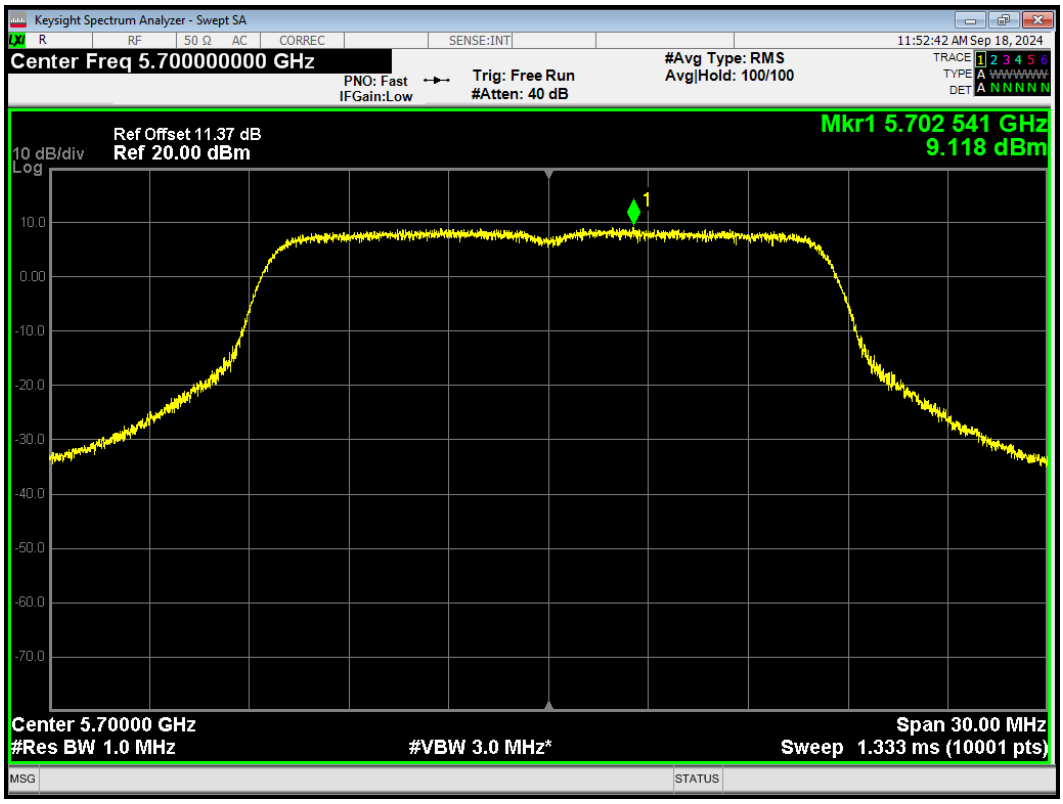
PSD 802.11a 5500MHz



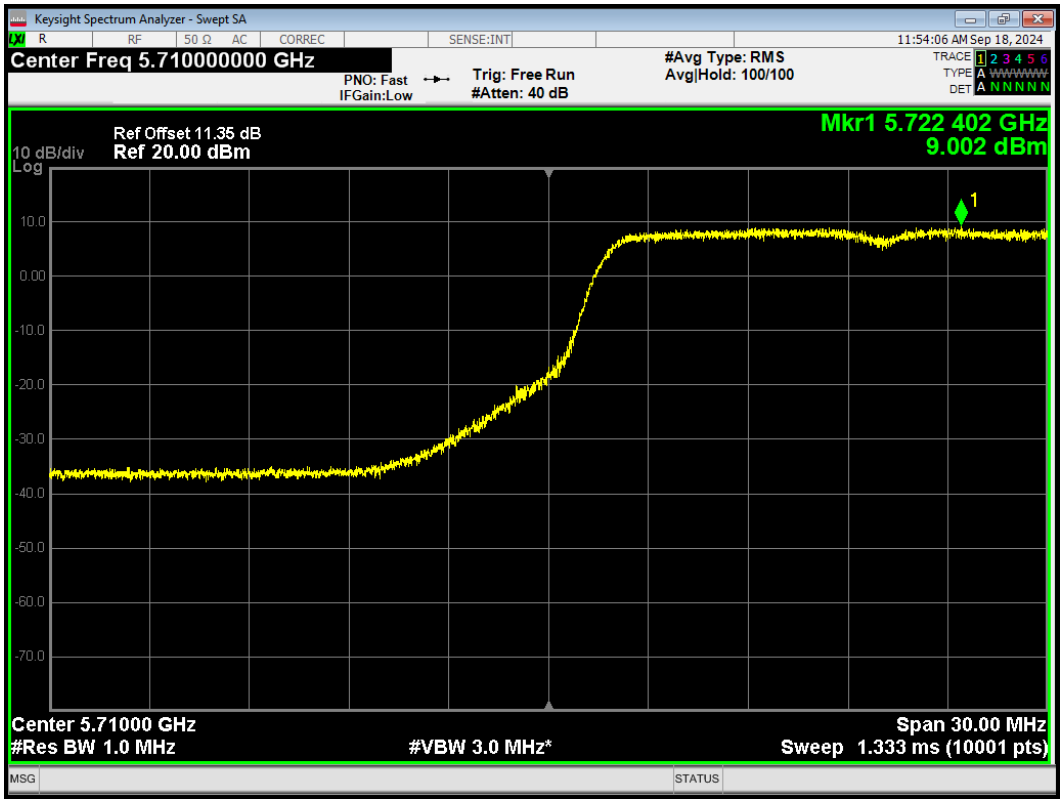
PSD 802.11a 5600MHz



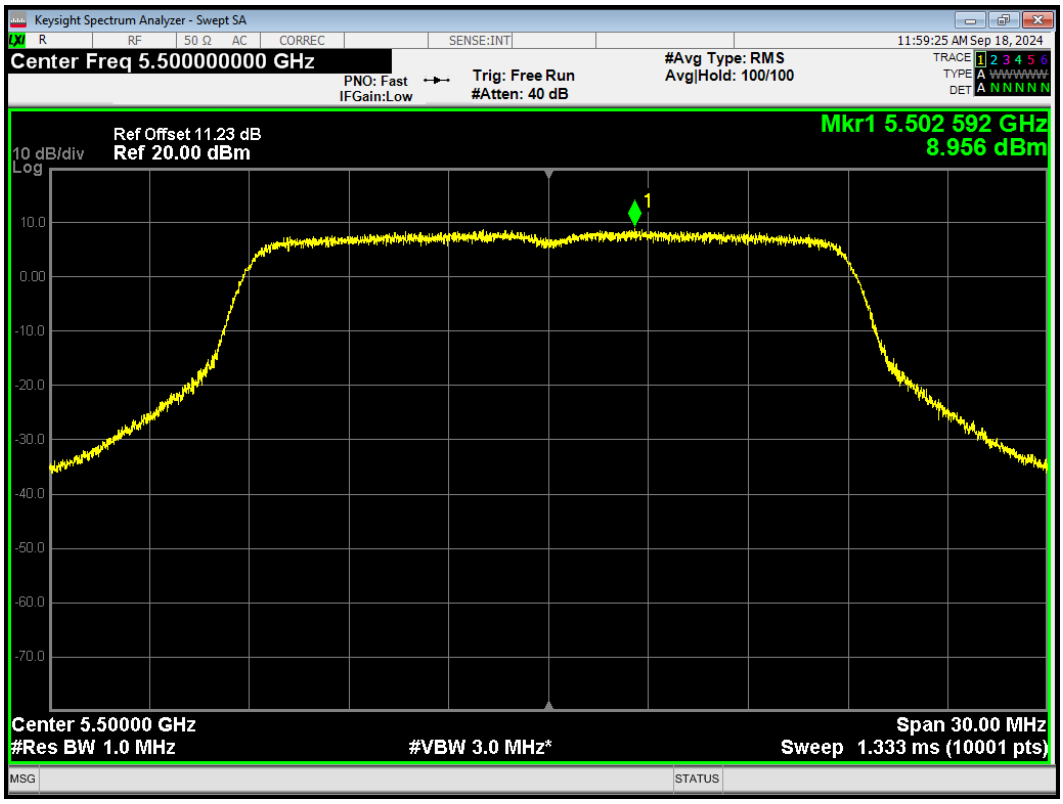
PSD 802.11a 5700MHz



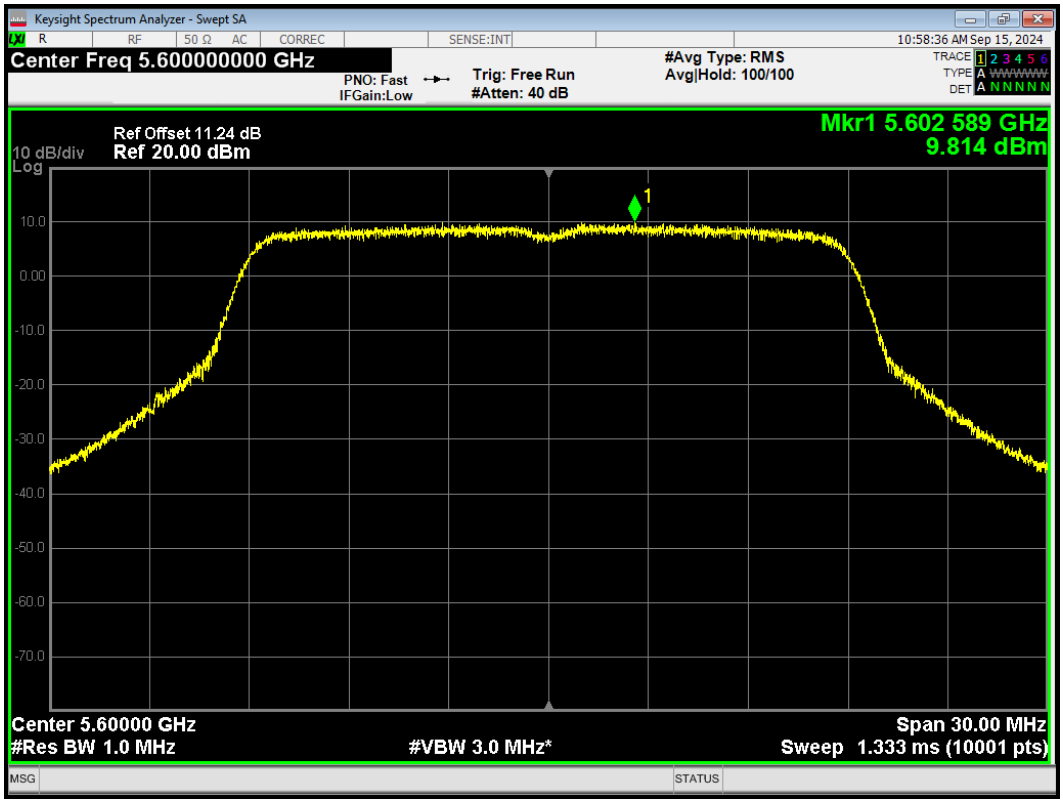
PSD 802.11a 5710MHz



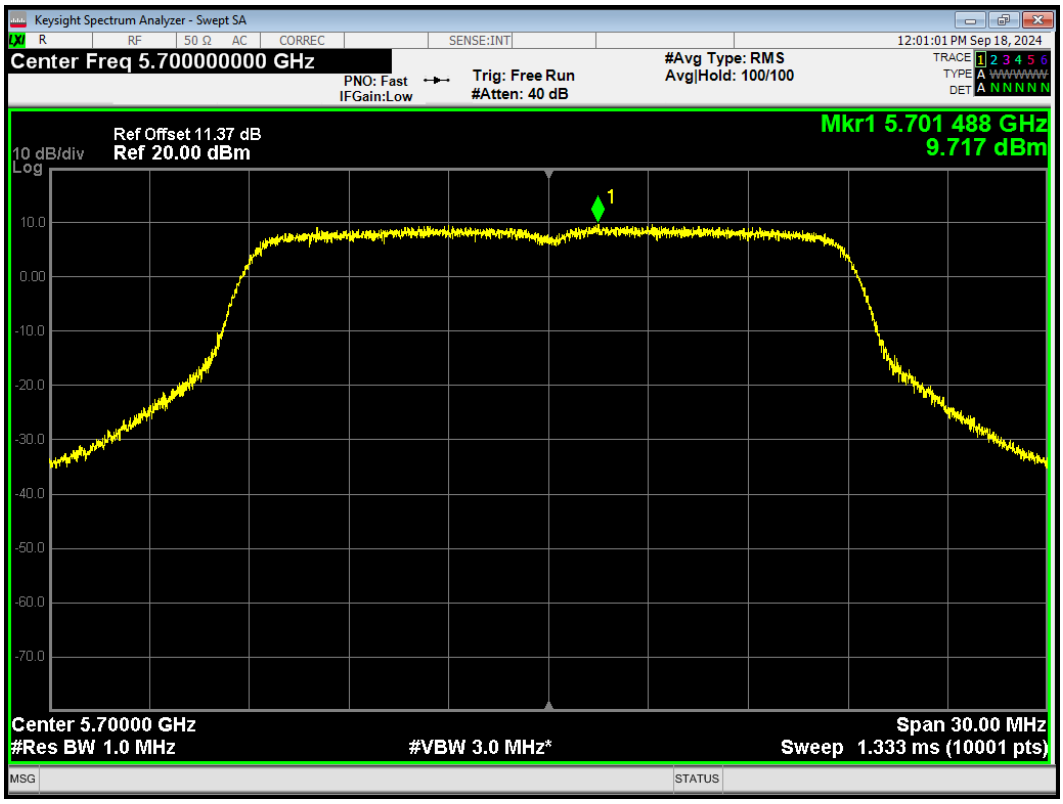
PSD 802.11ac(VHT20) 5500MHz



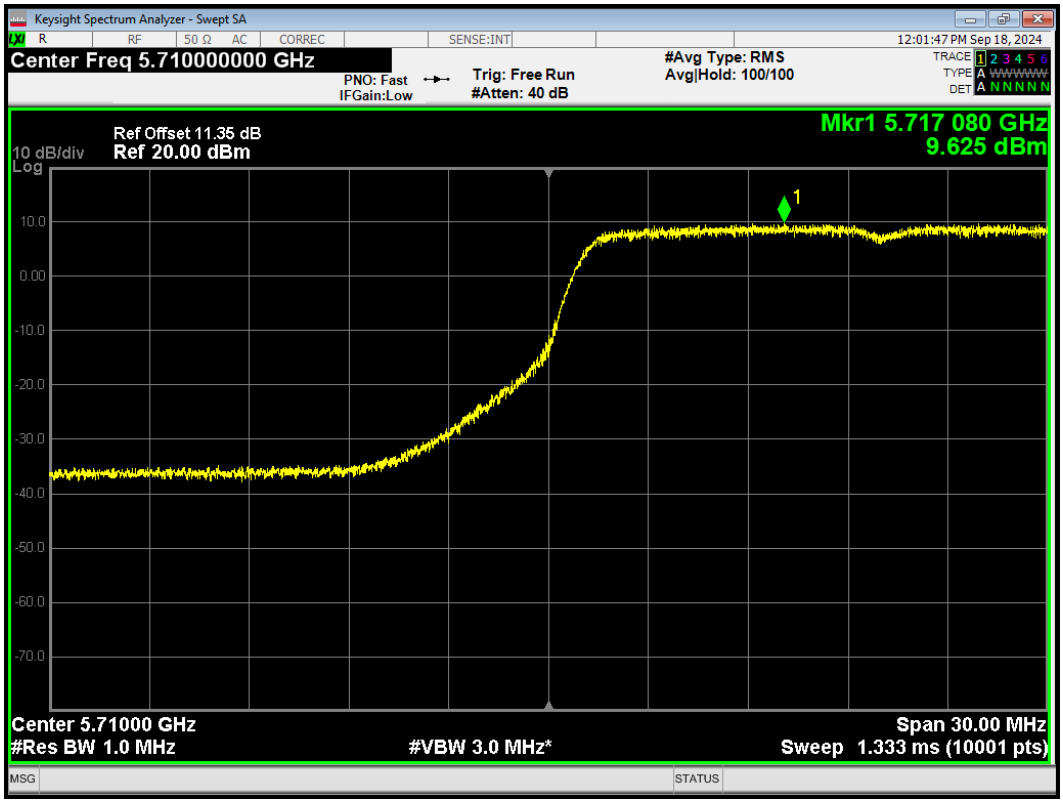
PSD 802.11ac(VHT20) 5600MHz



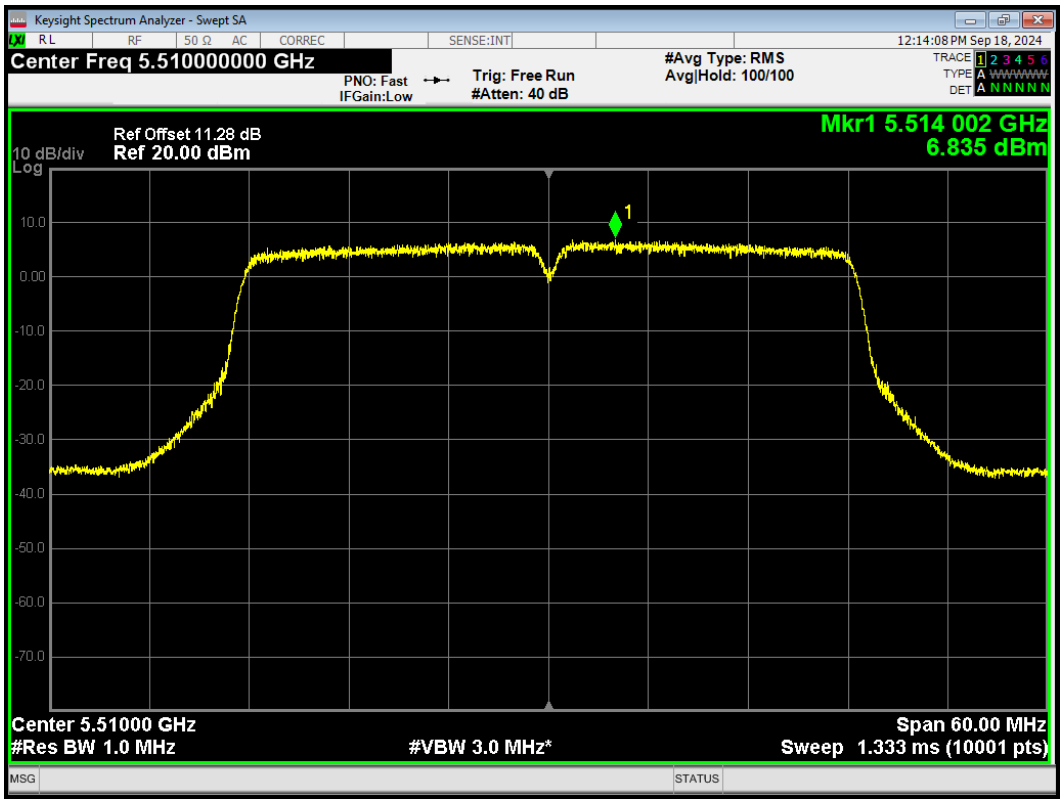
PSD 802.11ac(VHT20) 5700MHz



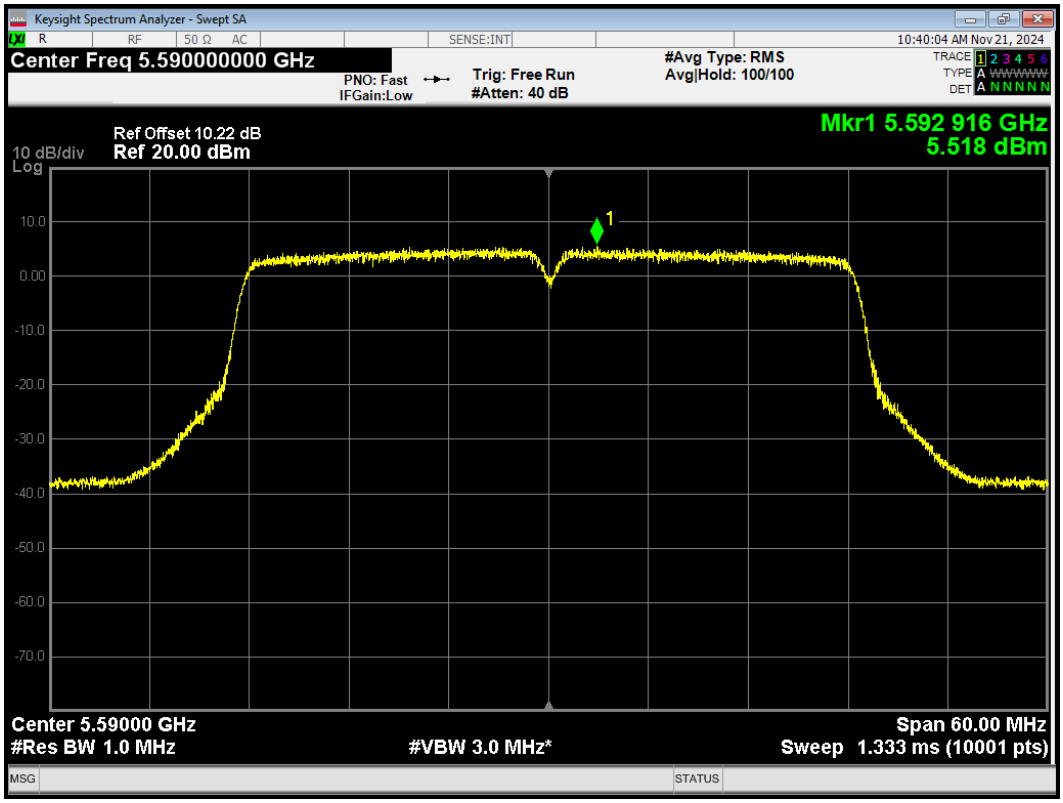
PSD 802.11ac(VHT20) 5710MHz



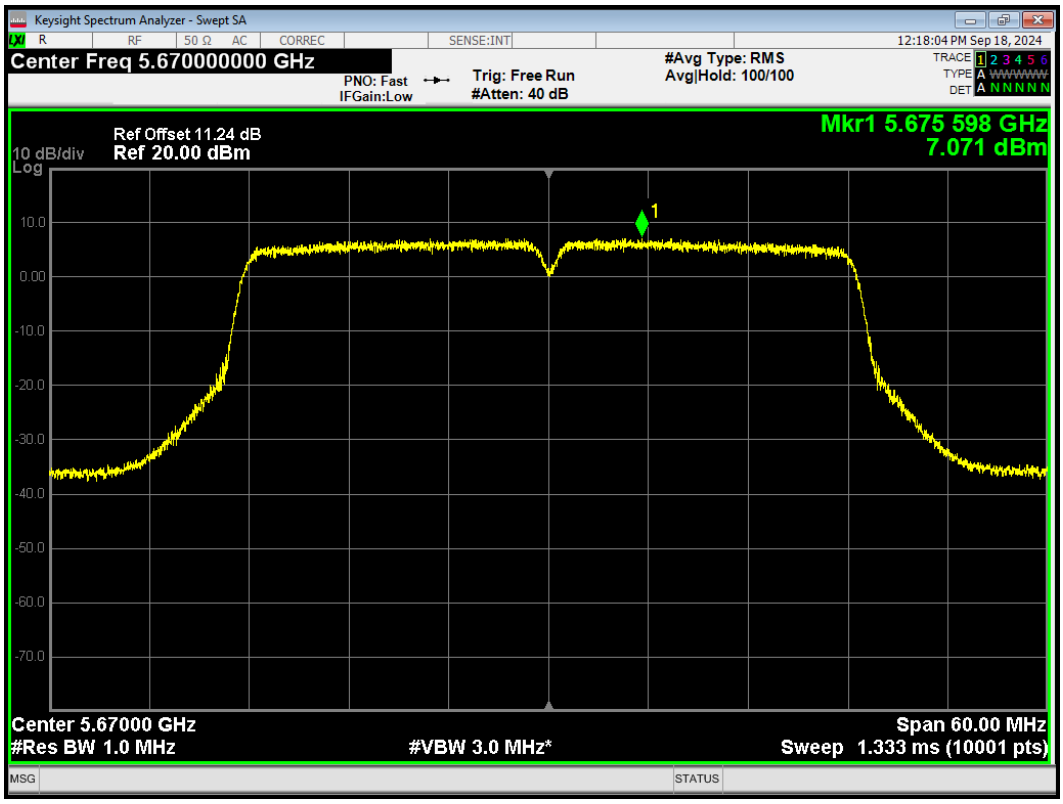
PSD 802.11ac(VHT40) 5510MHz



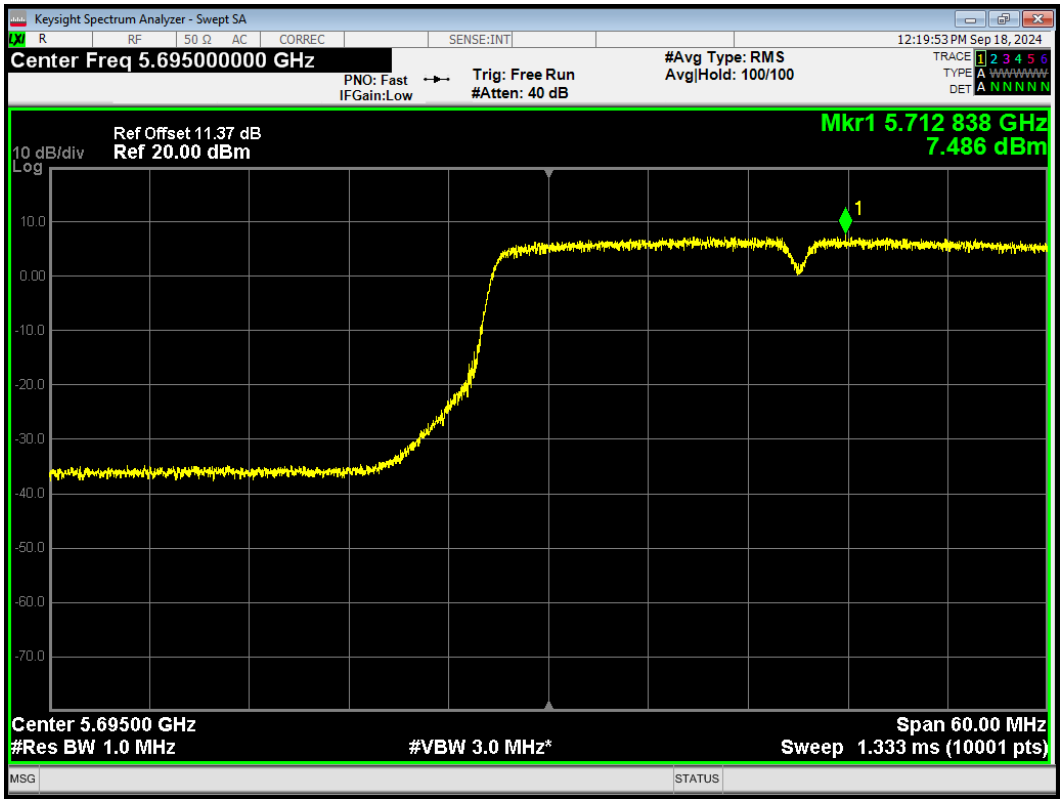
PSD 802.11ac(VHT40) 5590MHz



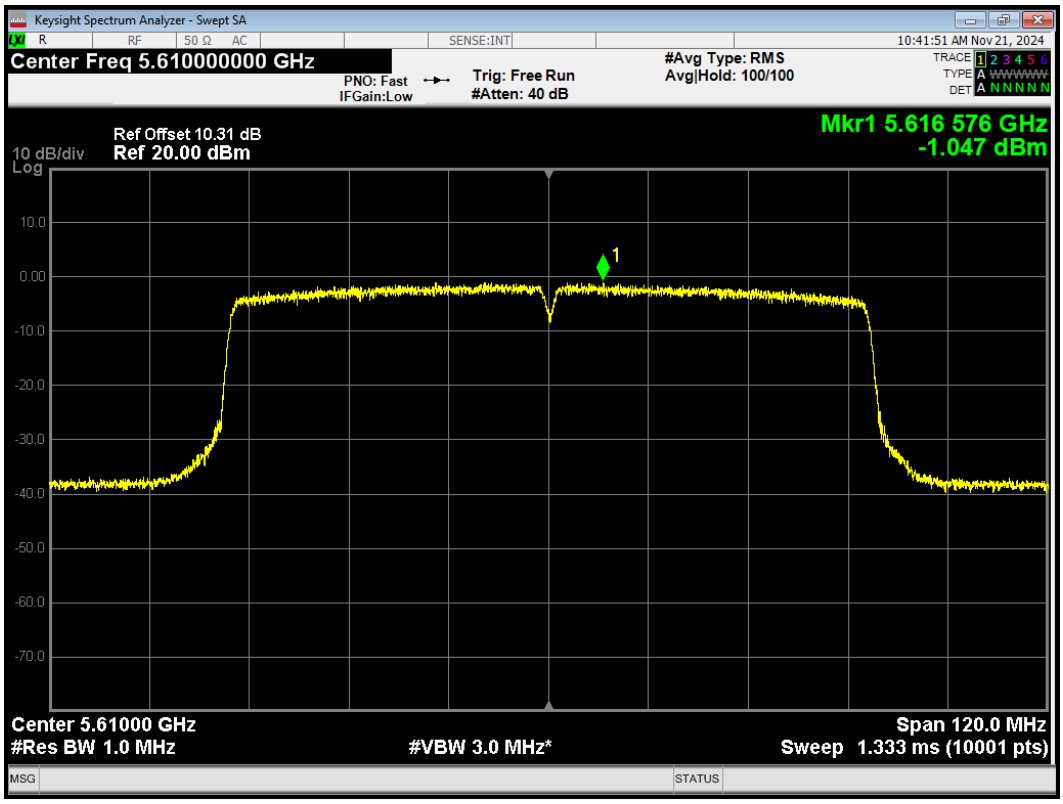
PSD 802.11ac(VHT40) 5670MHz



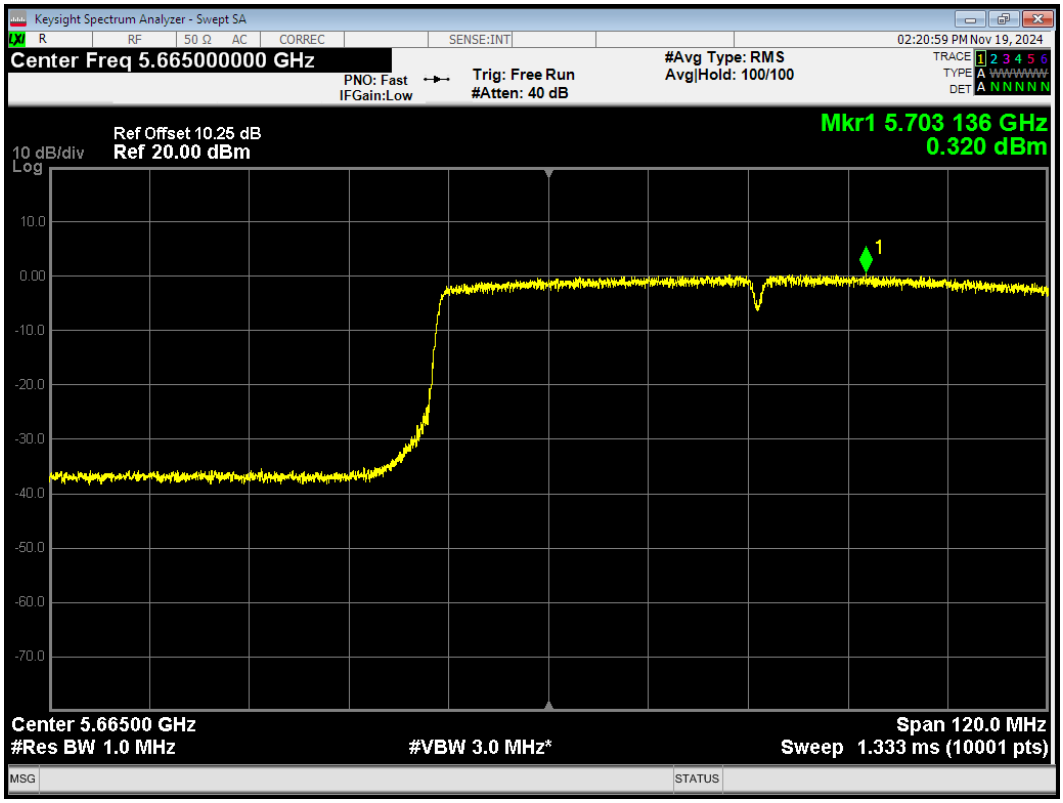
PSD 802.11ac(VHT40) 5695MHz



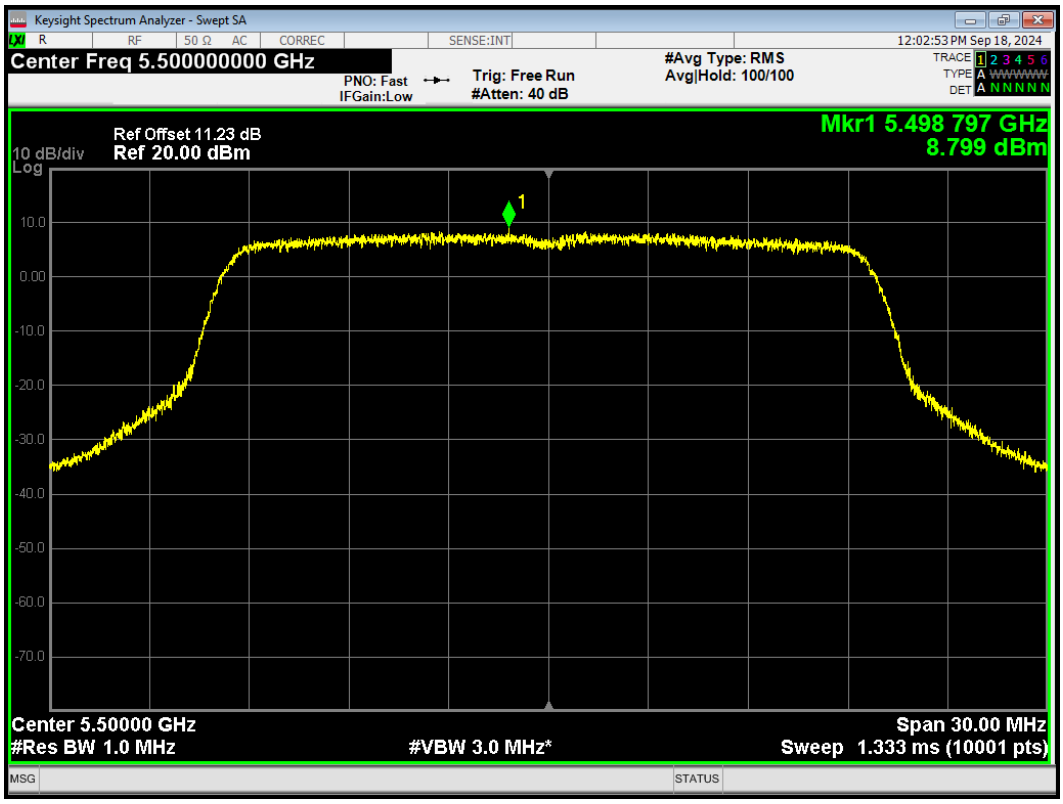
PSD 802.11ac(VHT80) 5610MHz



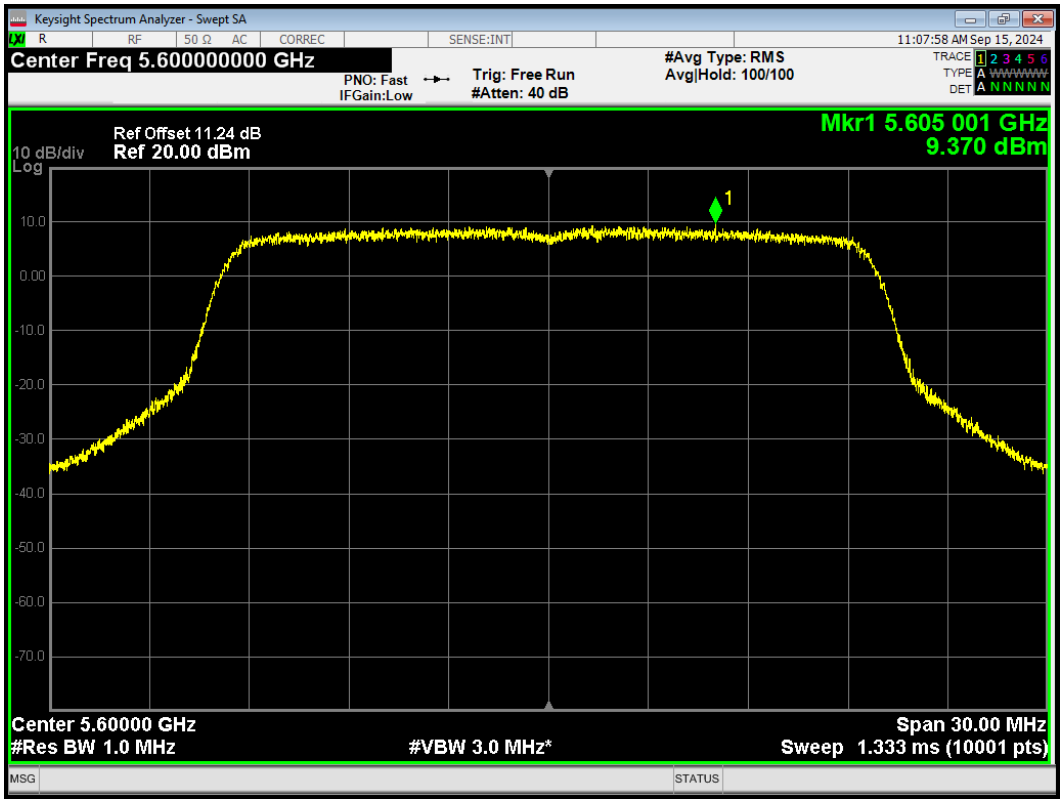
PSD 802.11ac(VHT80) 5665MHz



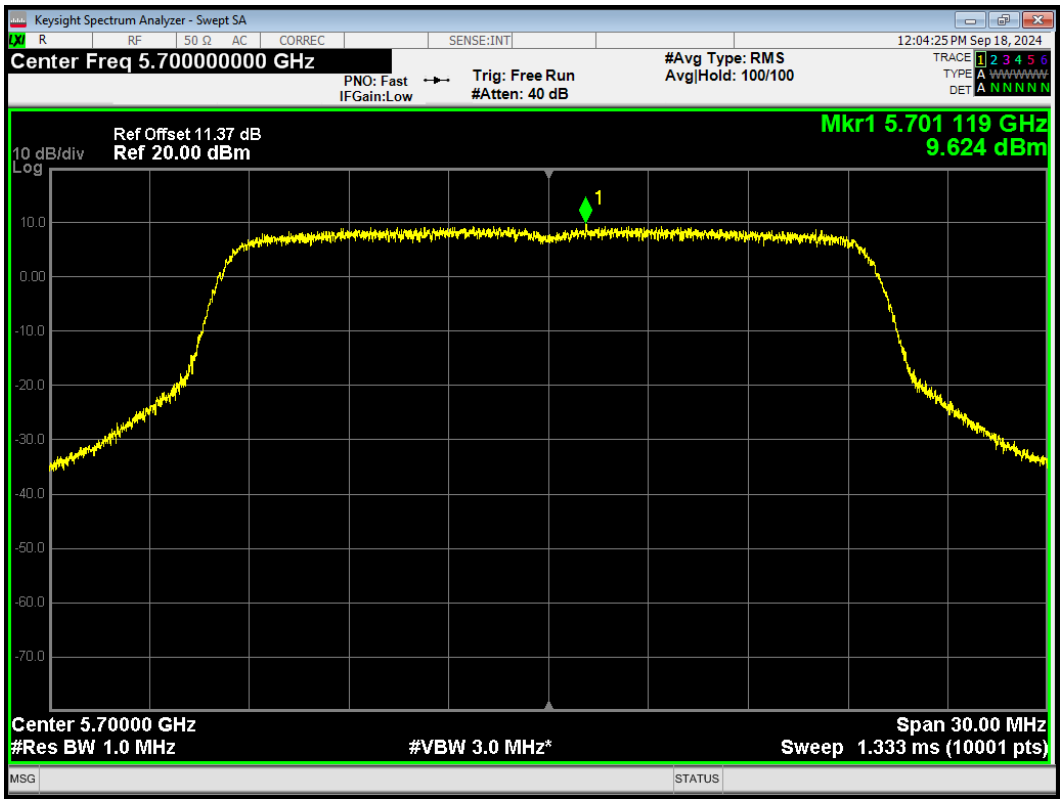
PSD 802.11ax(HE20) 5500MHz



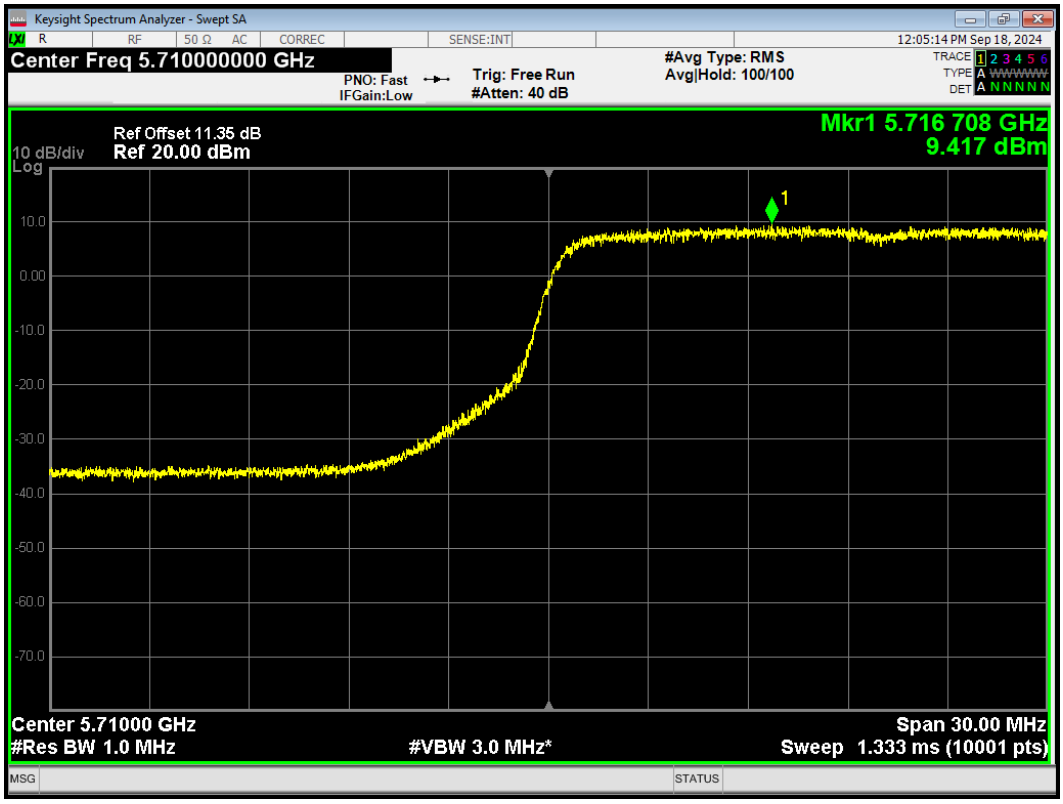
PSD 802.11ax(HE20) 5600MHz



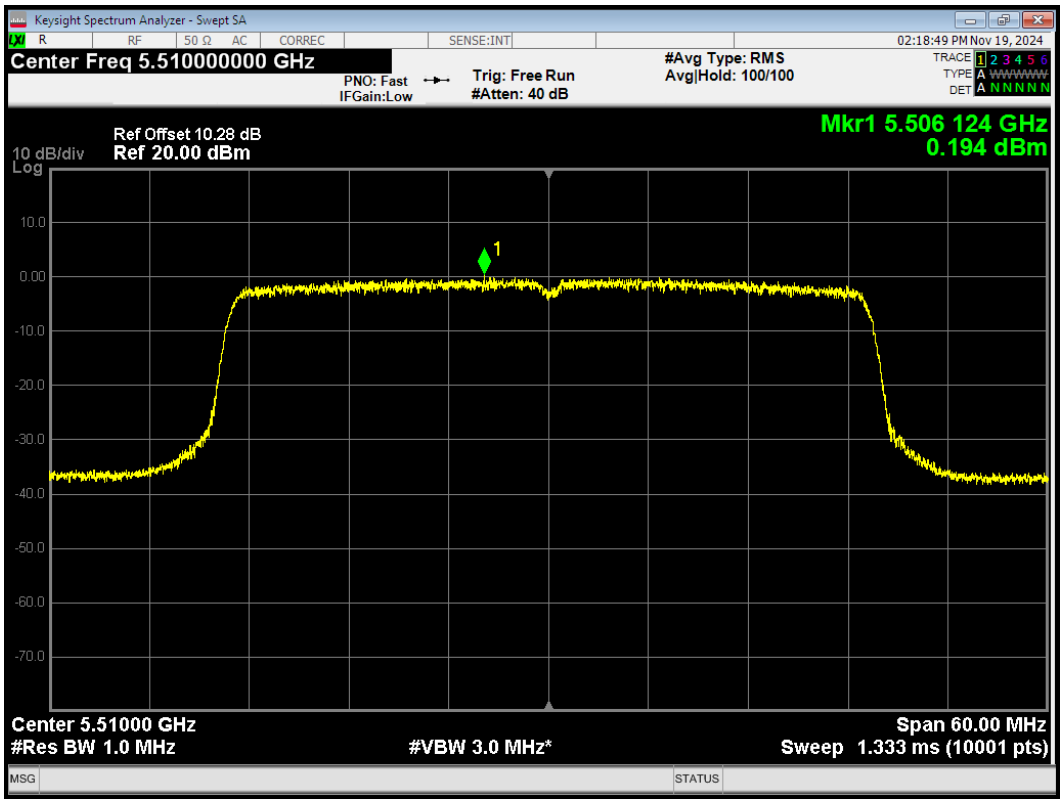
PSD 802.11ax(HE20) 5700MHz



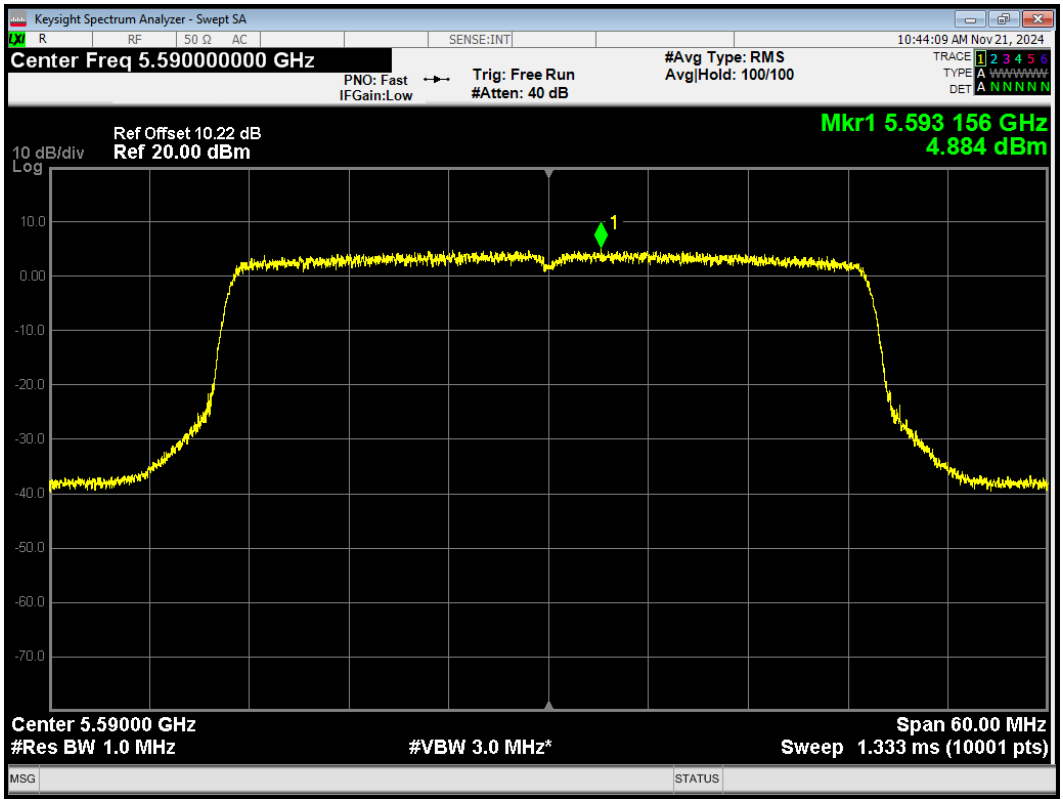
PSD 802.11ax(HE20) 5710MHz



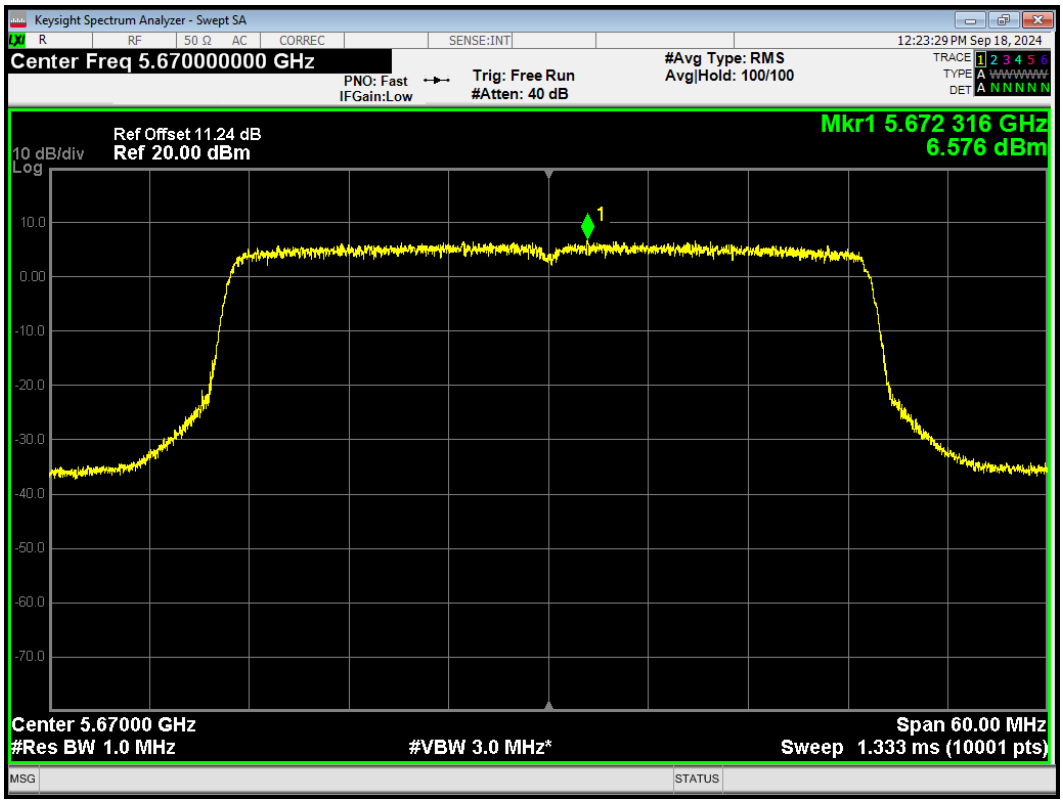
PSD 802.11ax(HE40) 5510MHz



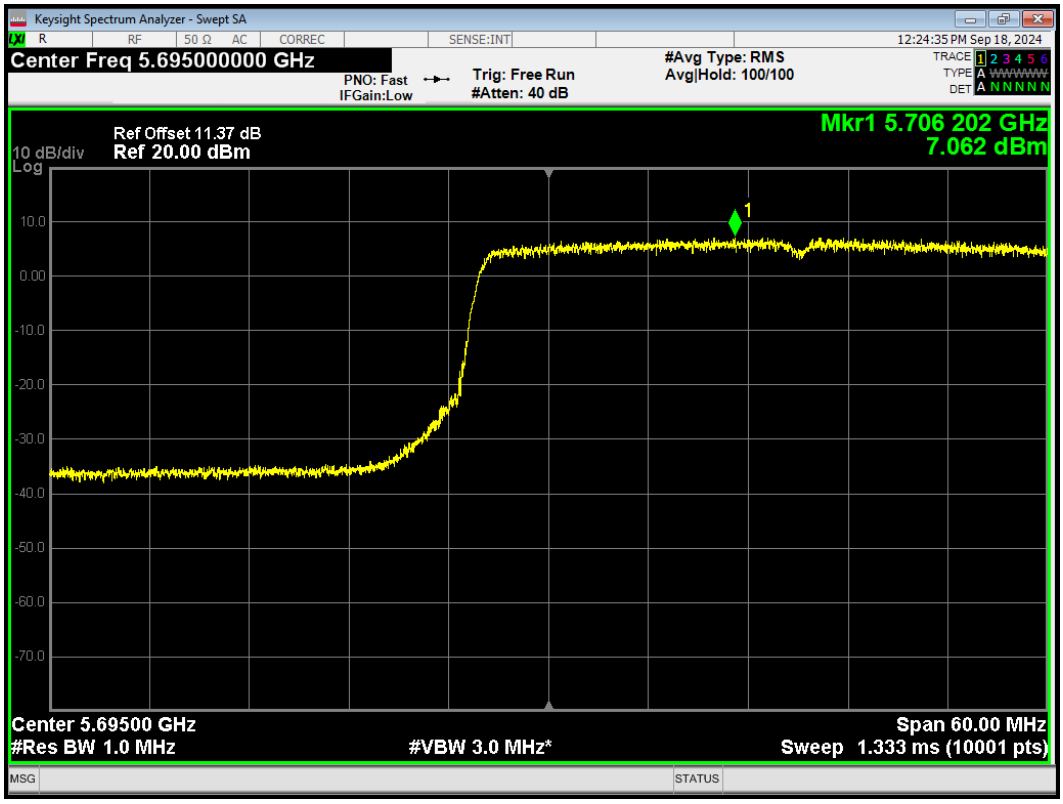
PSD 802.11ax(HE40) 5590MHz



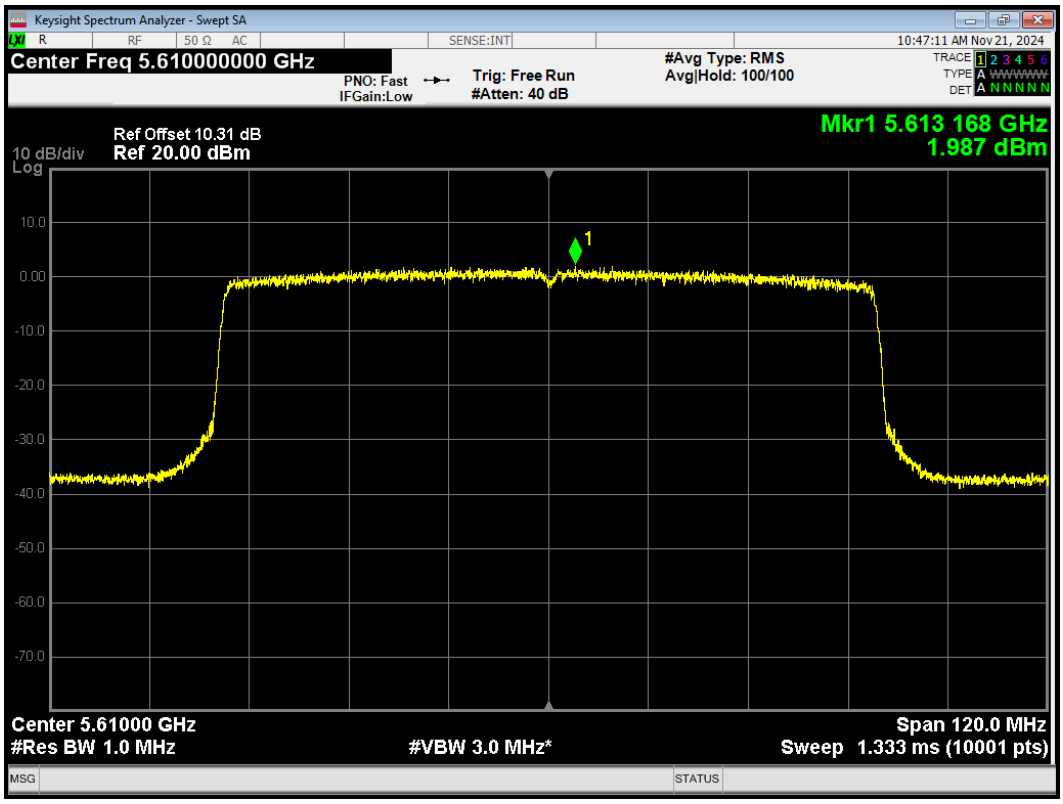
PSD 802.11ax(HE40) 5670MHz



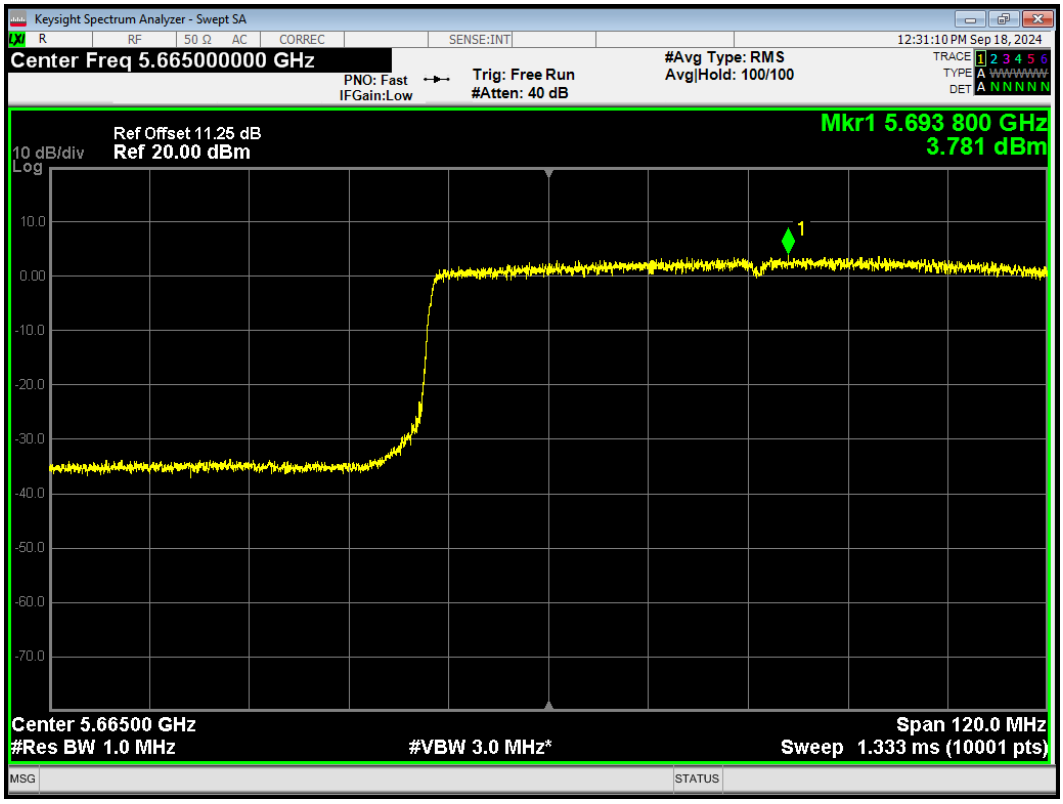
PSD 802.11ax(HE40) 5695MHz



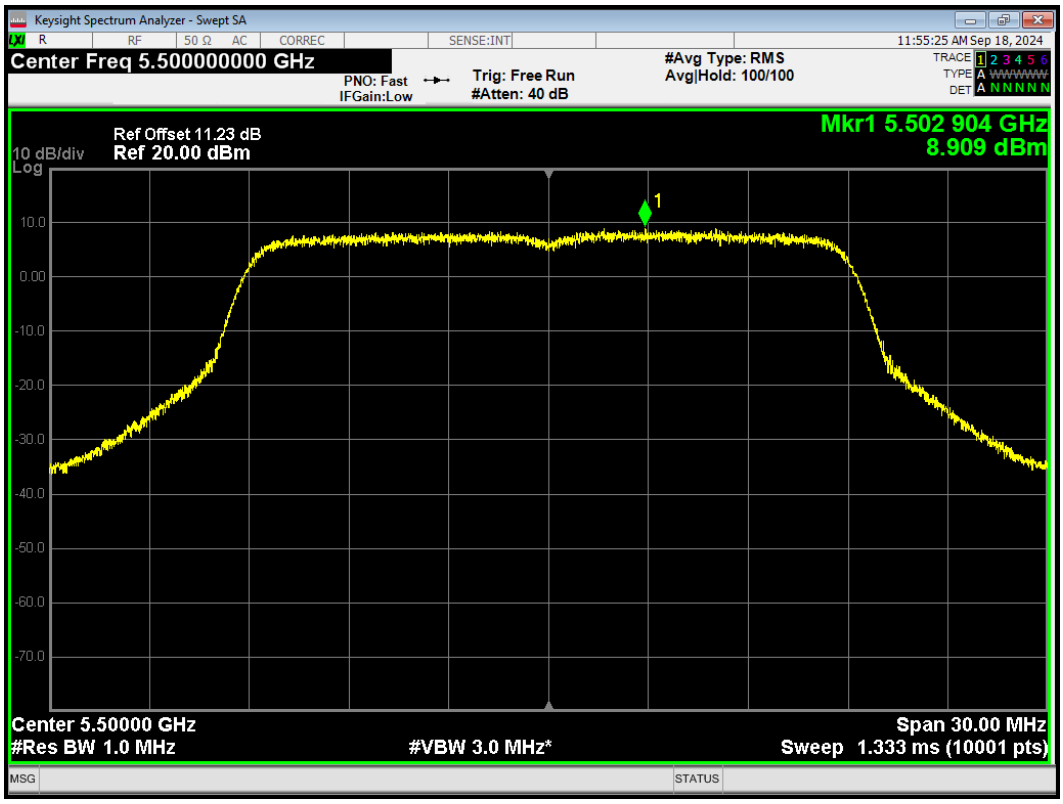
PSD 802.11ax(HE80) 5610MHz



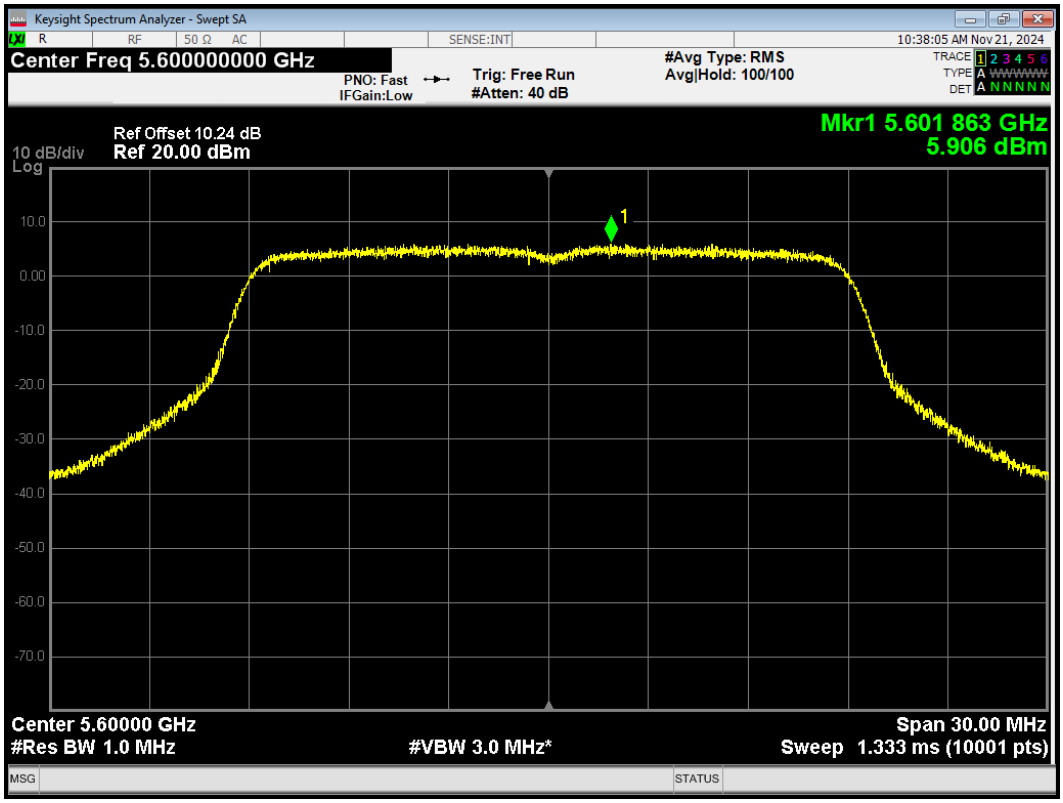
PSD 802.11ax(HE80) 5665MHz



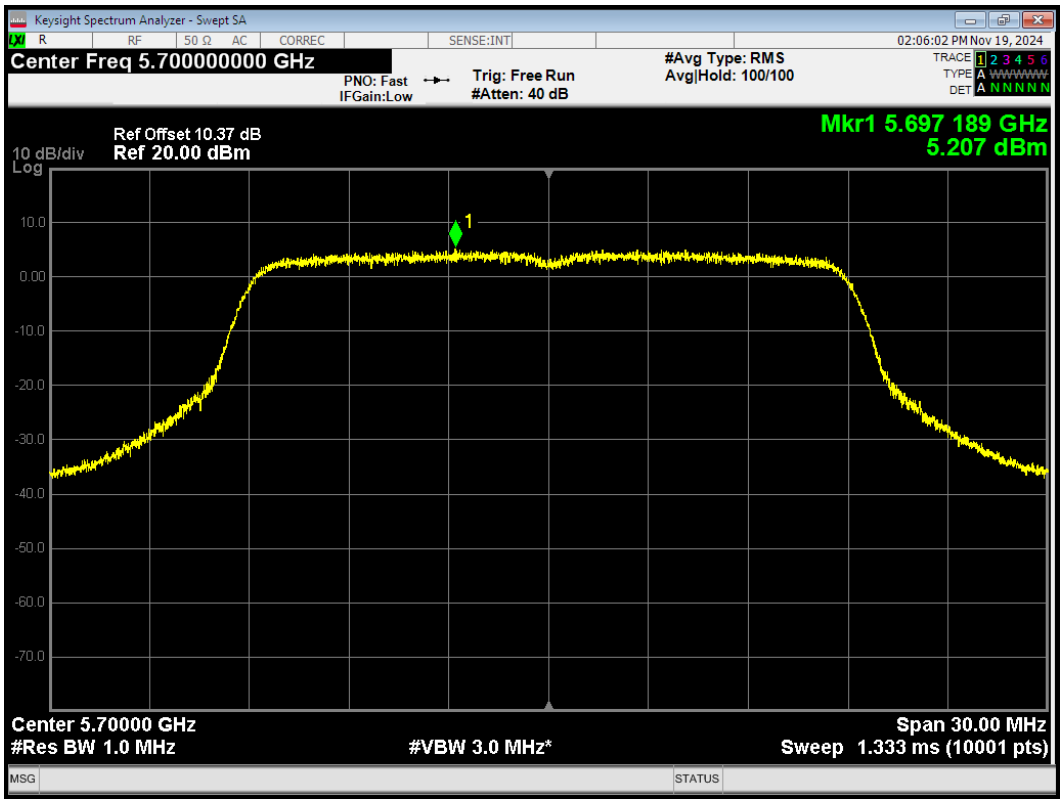
PSD 802.11n(HT20) 5500MHz



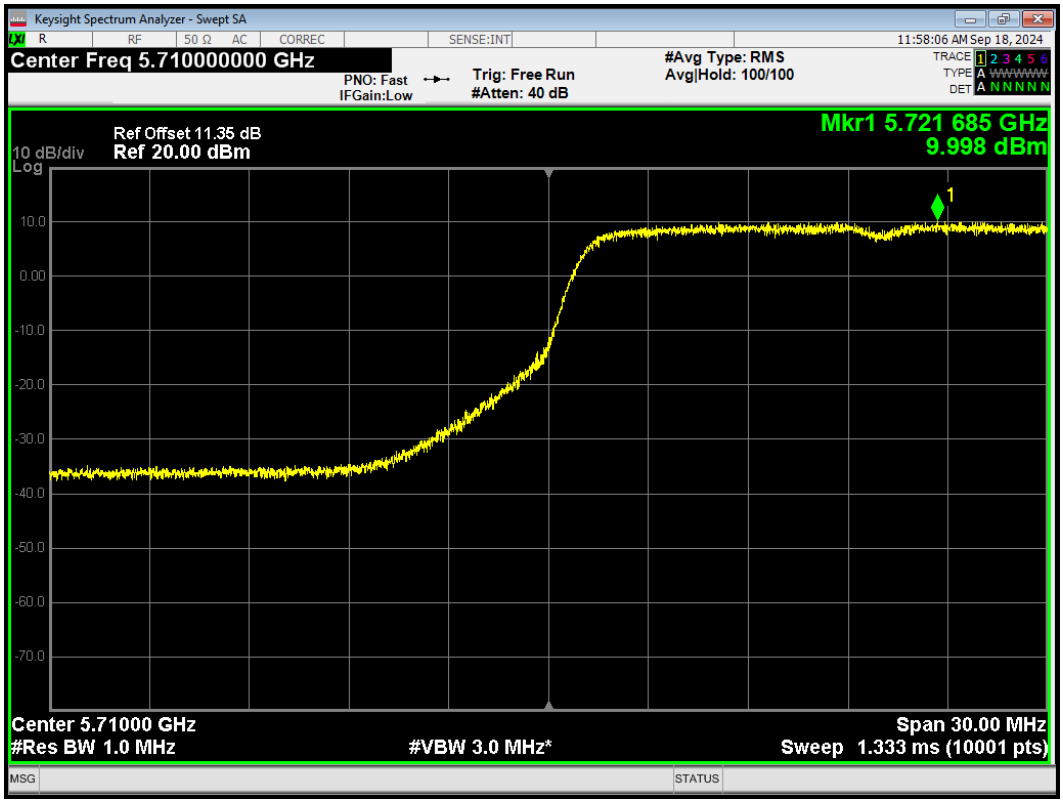
PSD 802.11n(HT20) 5600MHz



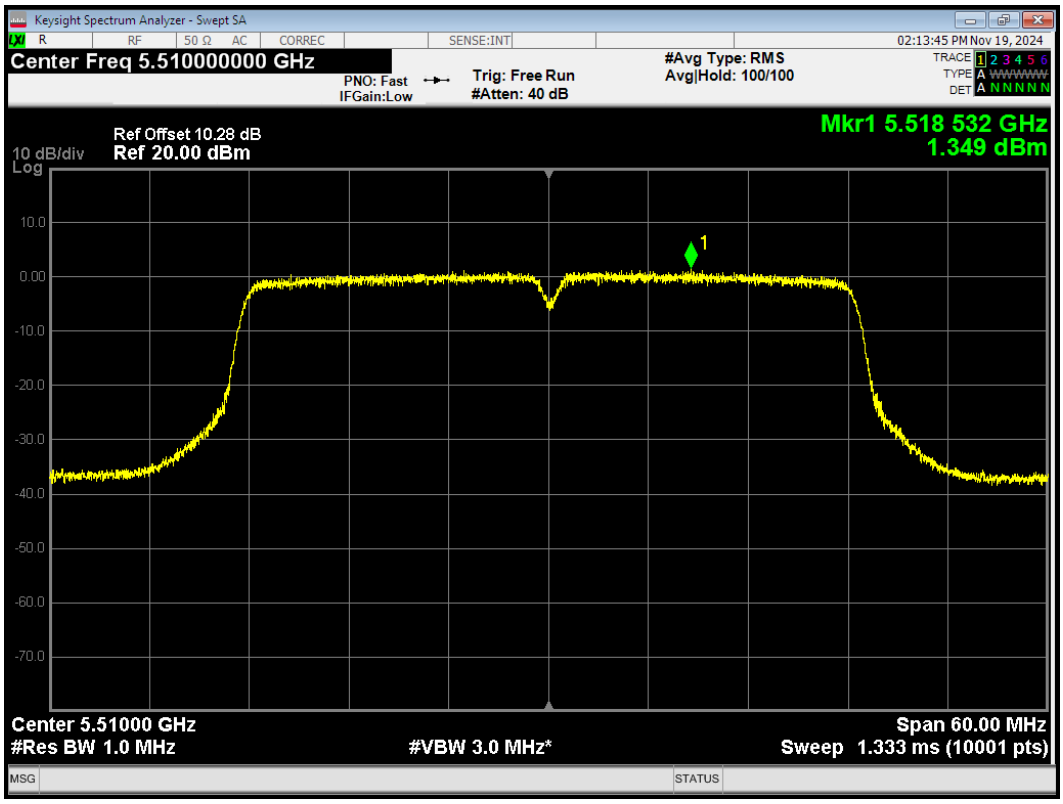
PSD 802.11n(HT20) 5700MHz



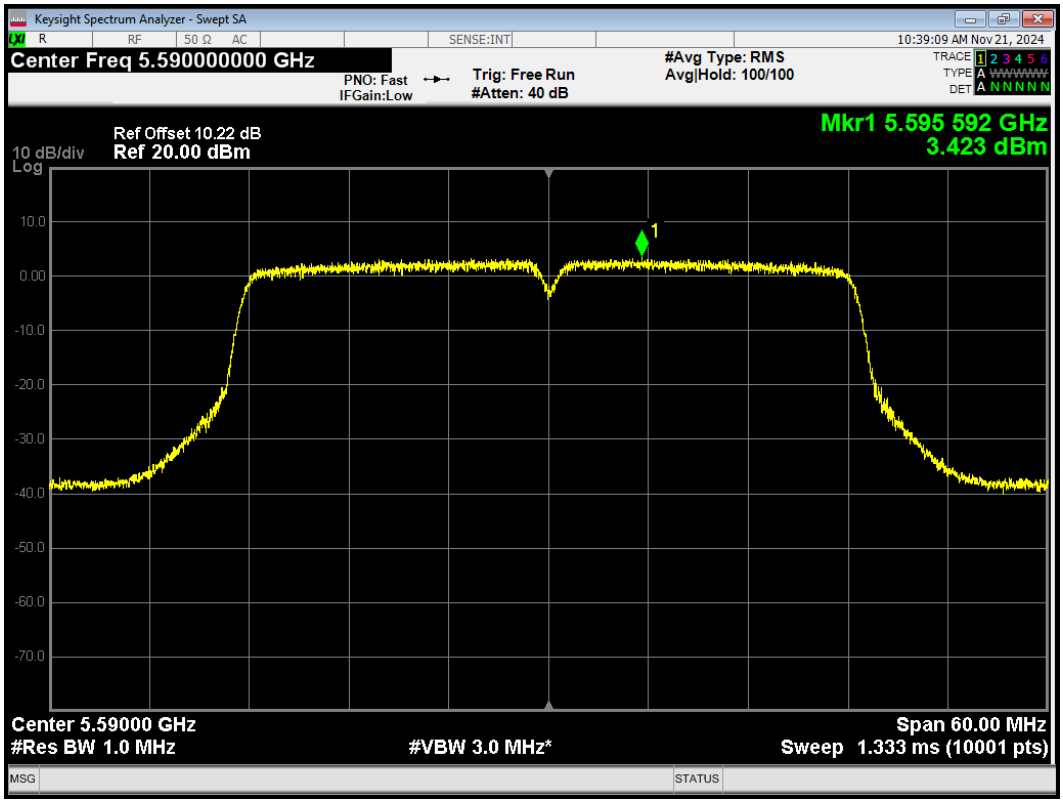
PSD 802.11n(HT20) 5710MHz



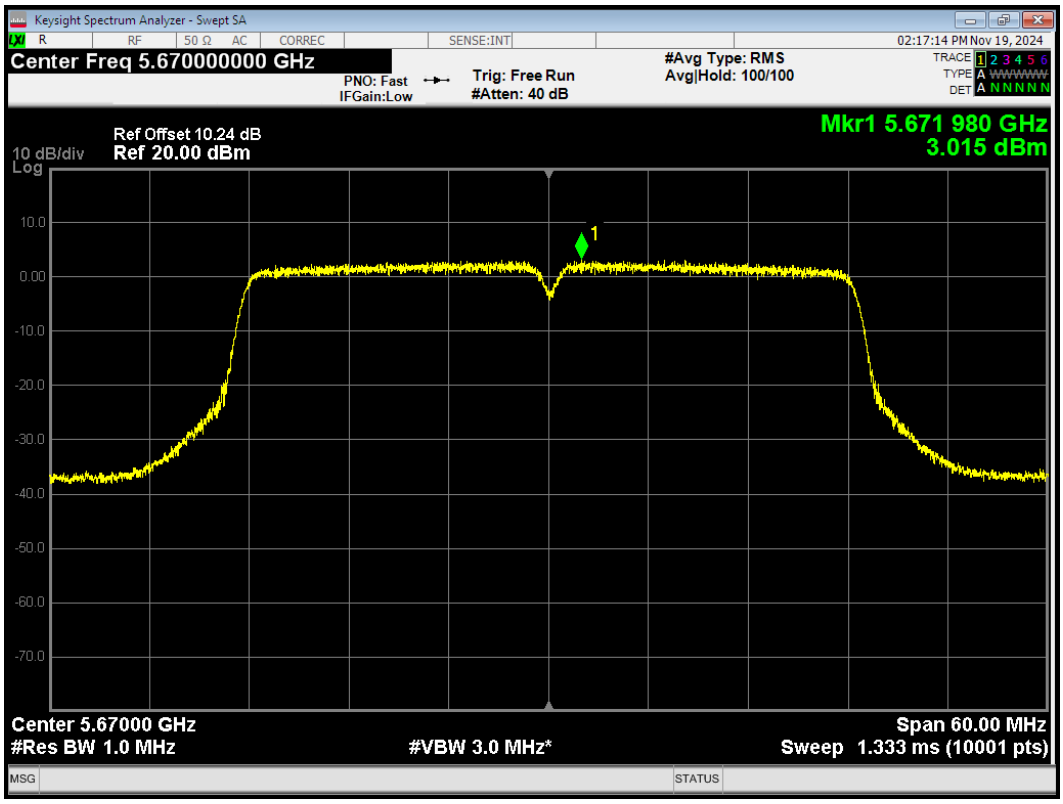
PSD 802.11n(HT40) 5510MHz



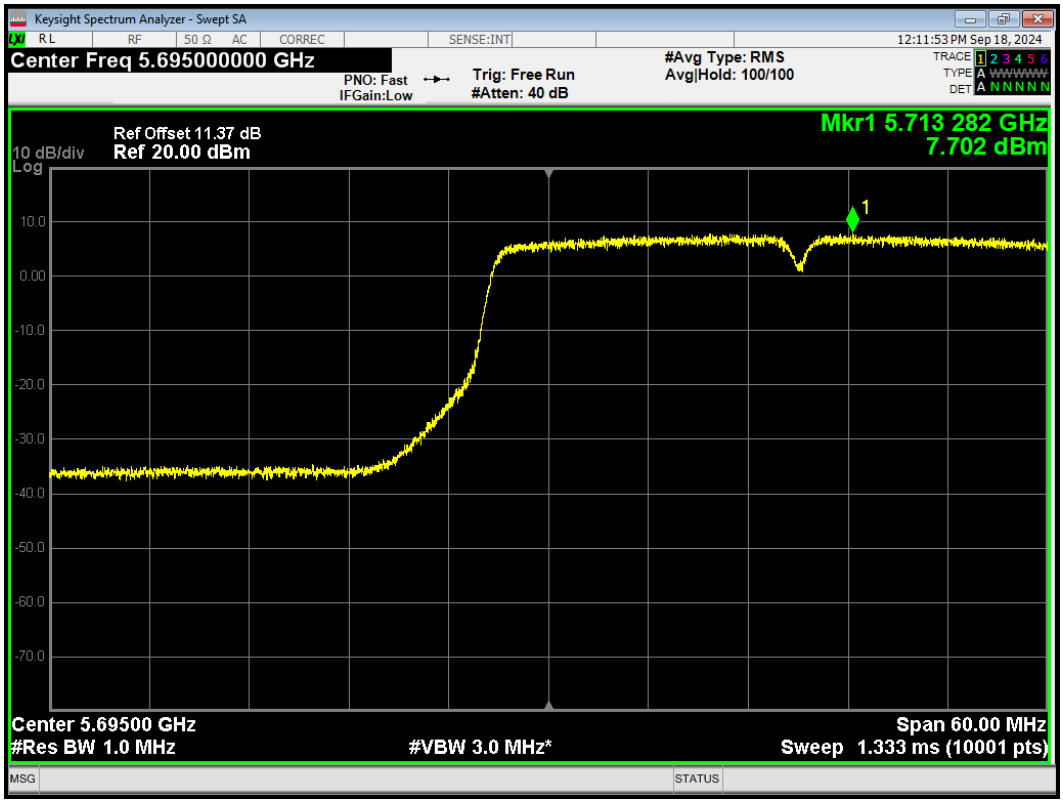
PSD 802.11n(HT40) 5590MHz



PSD 802.11n(HT40) 5670MHz

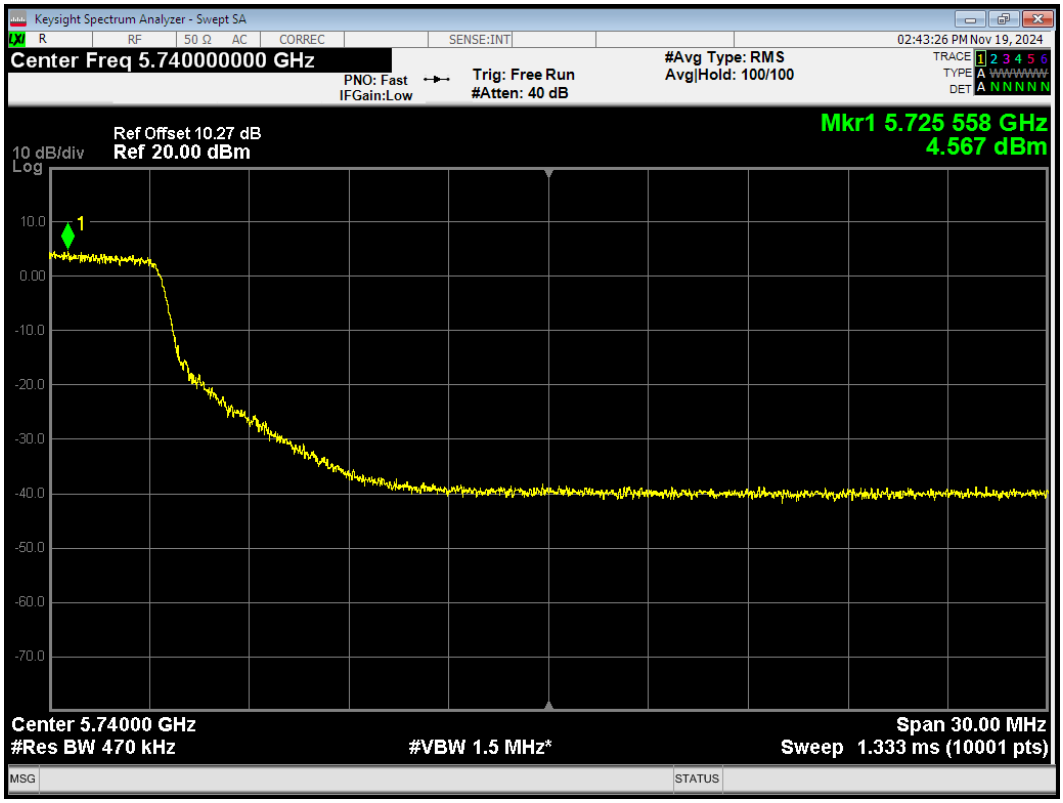


PSD 802.11n(HT40) 5695MHz

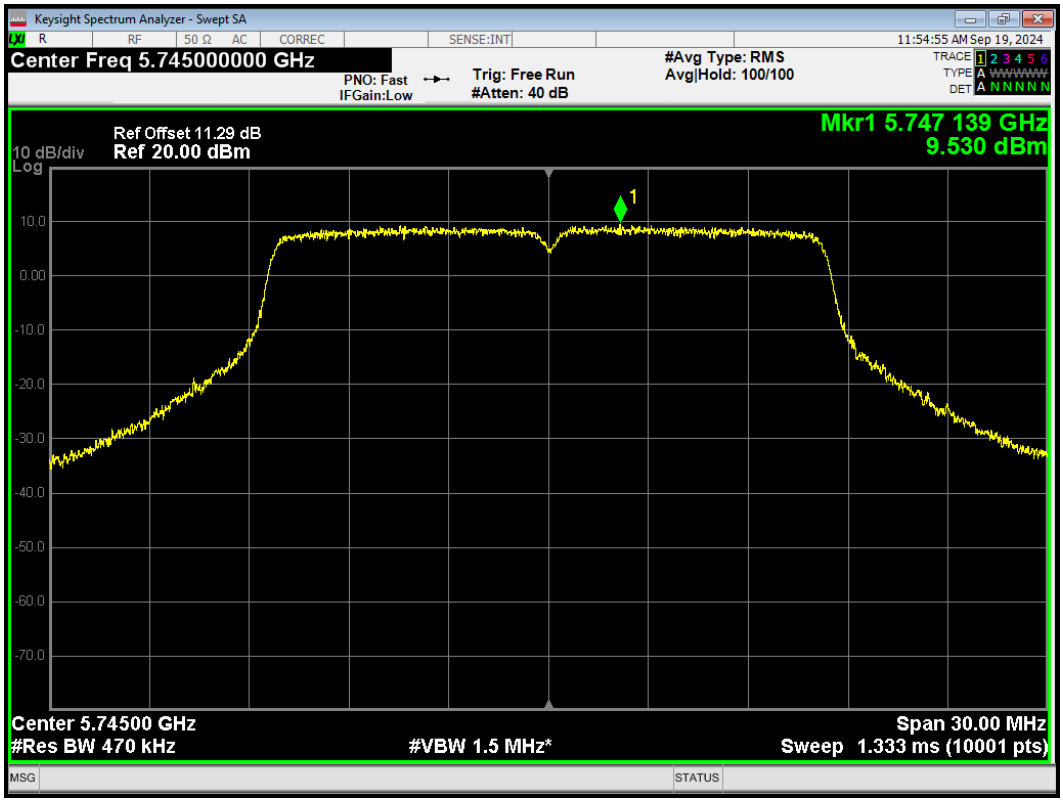


U-NII-3

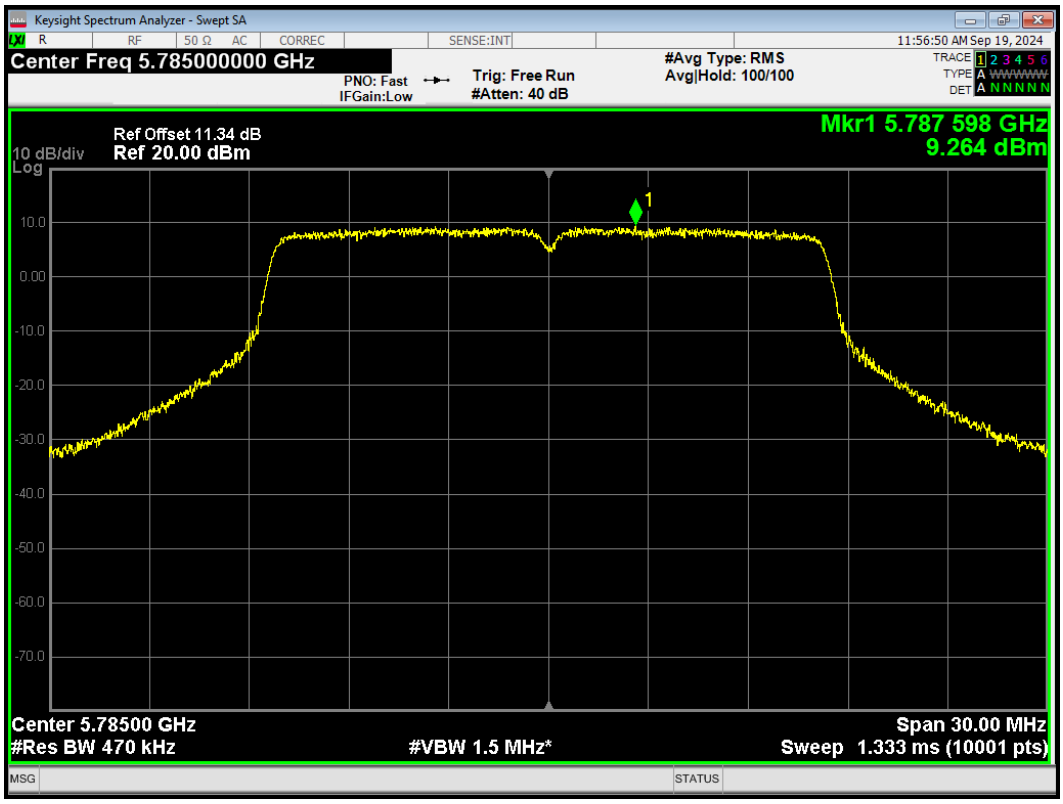
PSD 802.11a 5740MHz



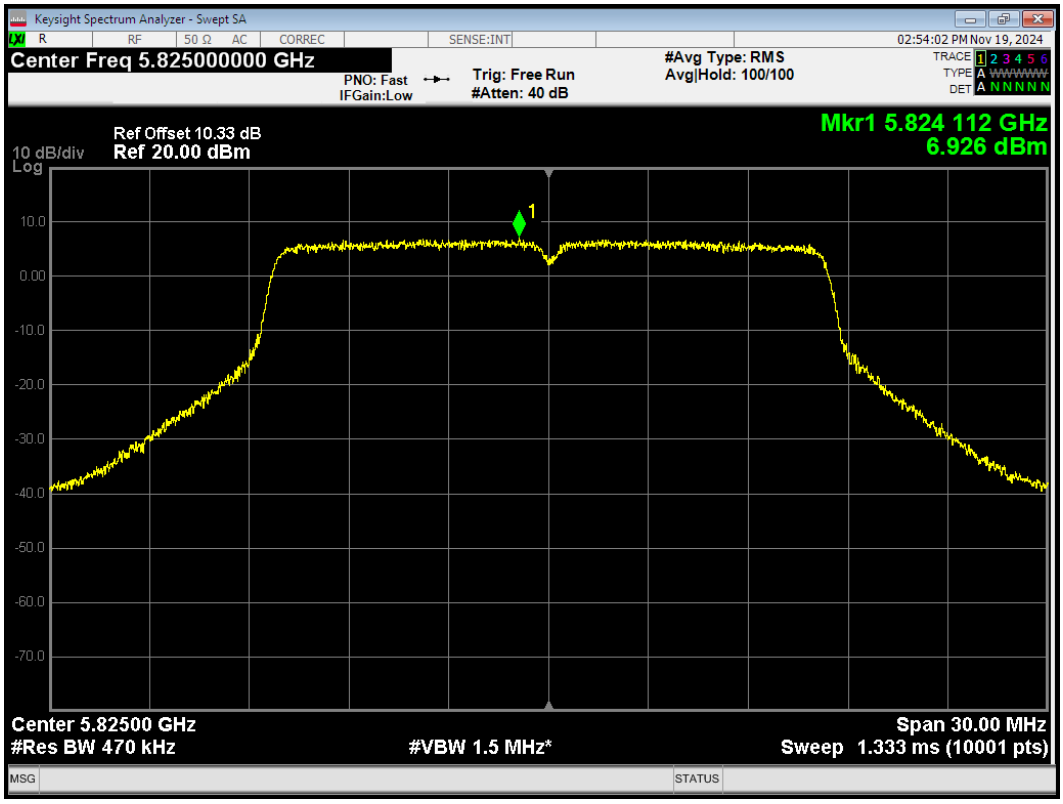
PSD 802.11a 5745MHz



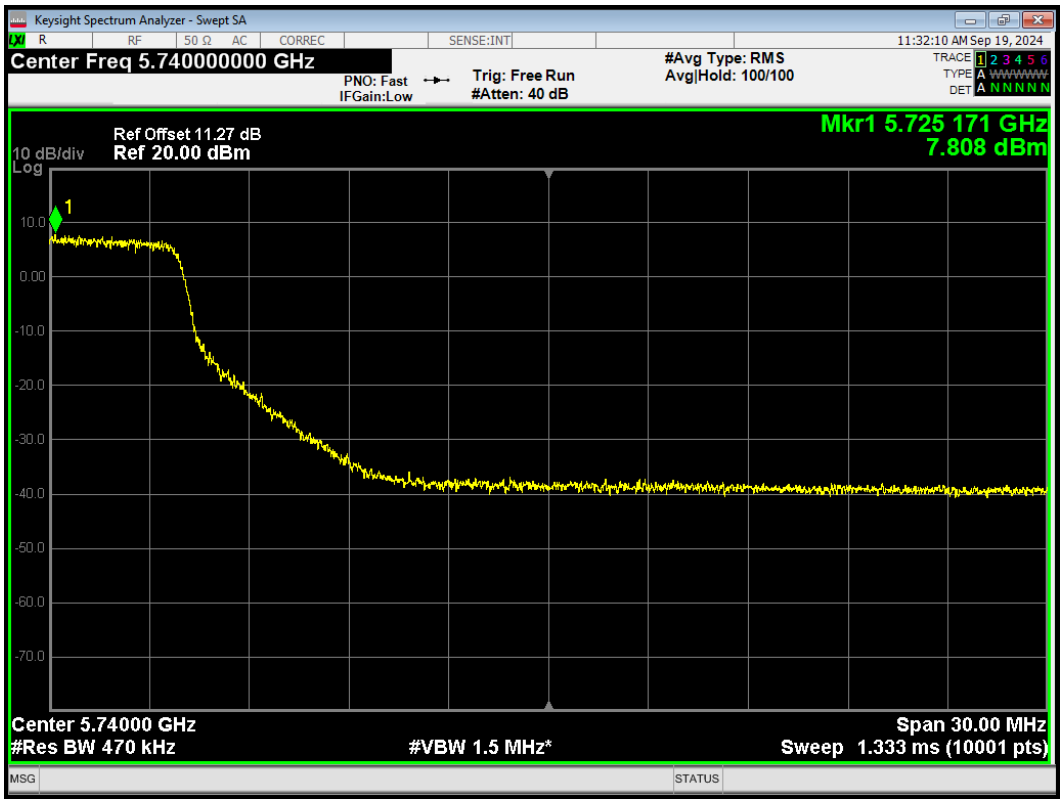
PSD 802.11a 5785MHz



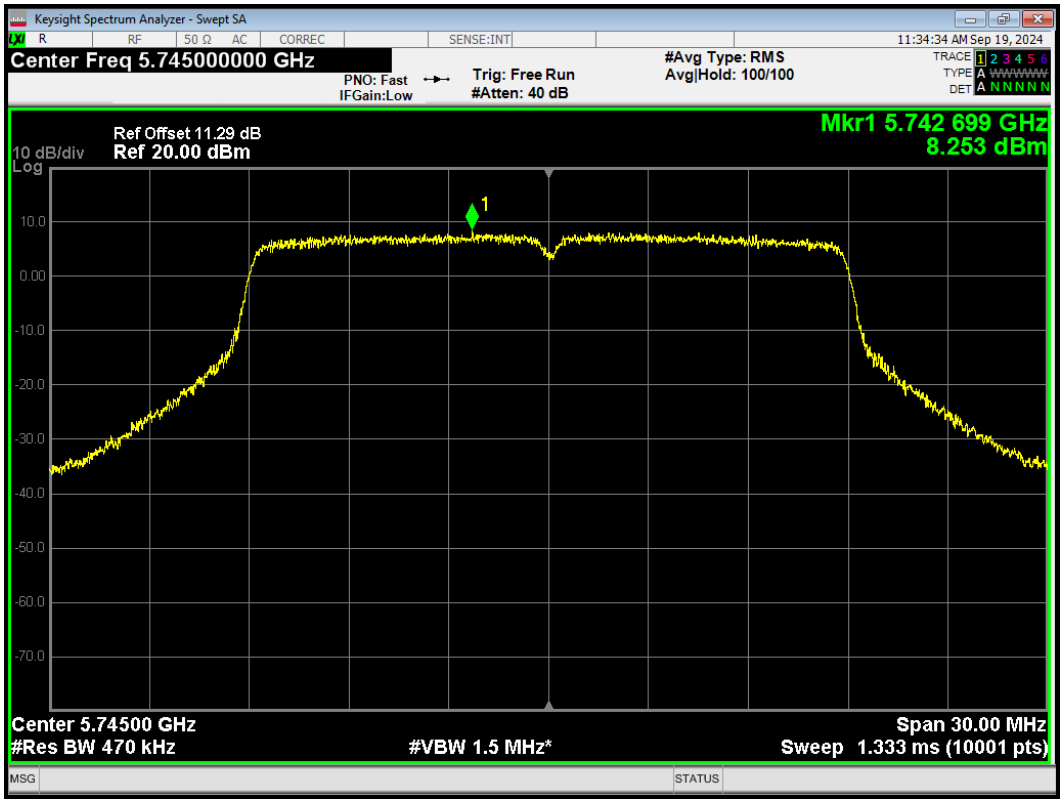
PSD 802.11a 5825MHz



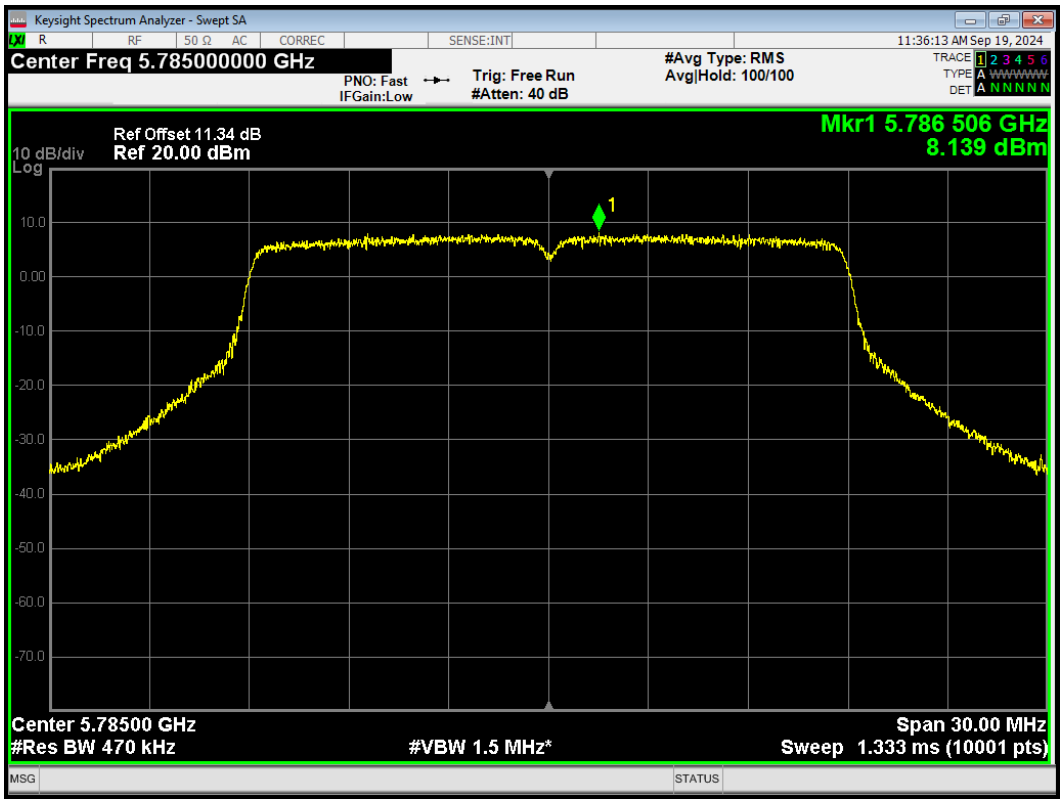
PSD 802.11ac(VHT20) 5740MHz



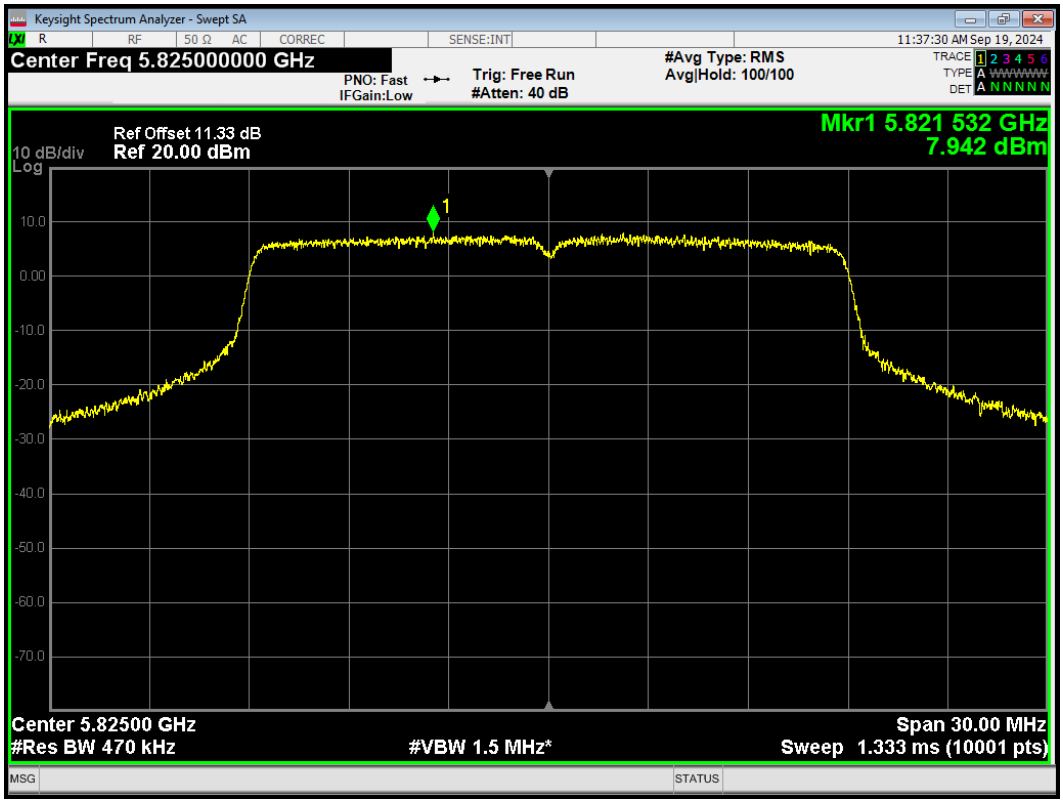
PSD 802.11ac(VHT20) 5745MHz



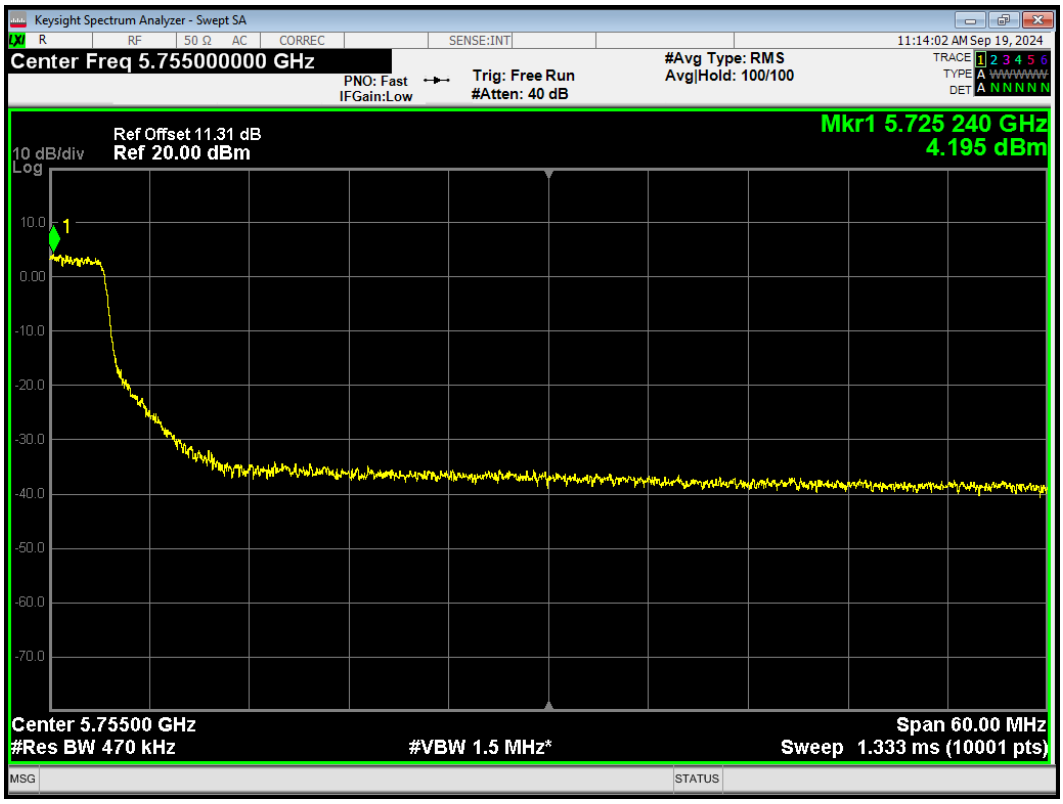
PSD 802.11ac(VHT20) 5785MHz



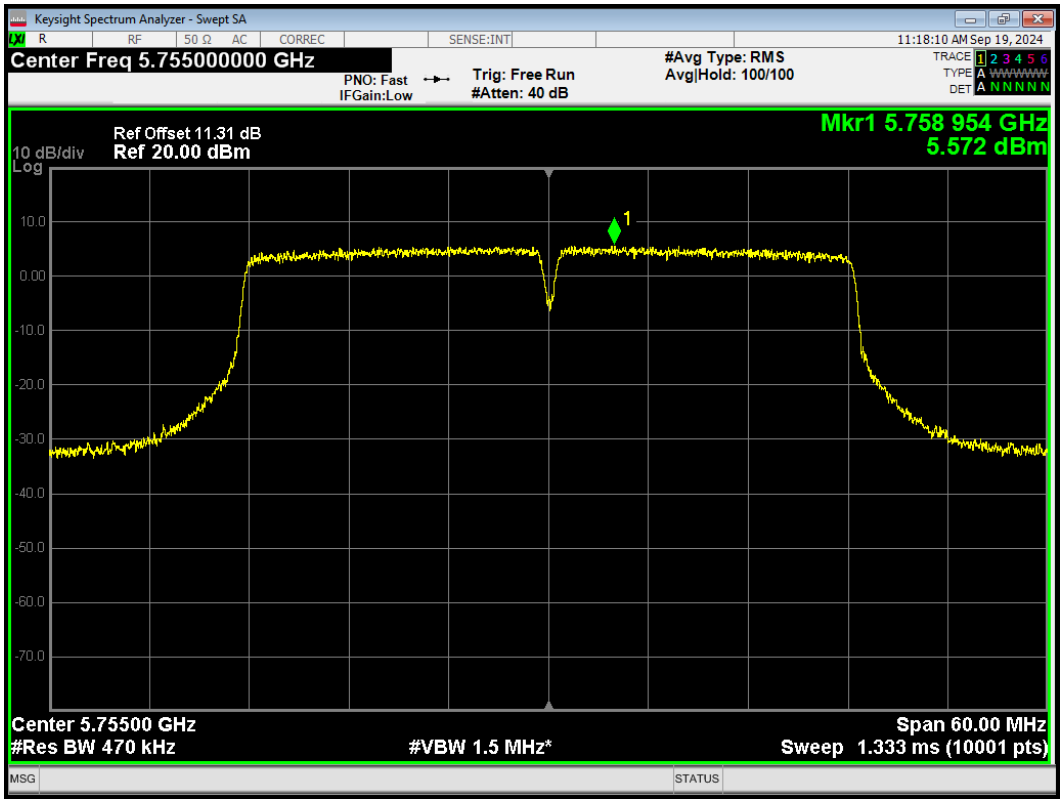
PSD 802.11ac(VHT20) 5825MHz



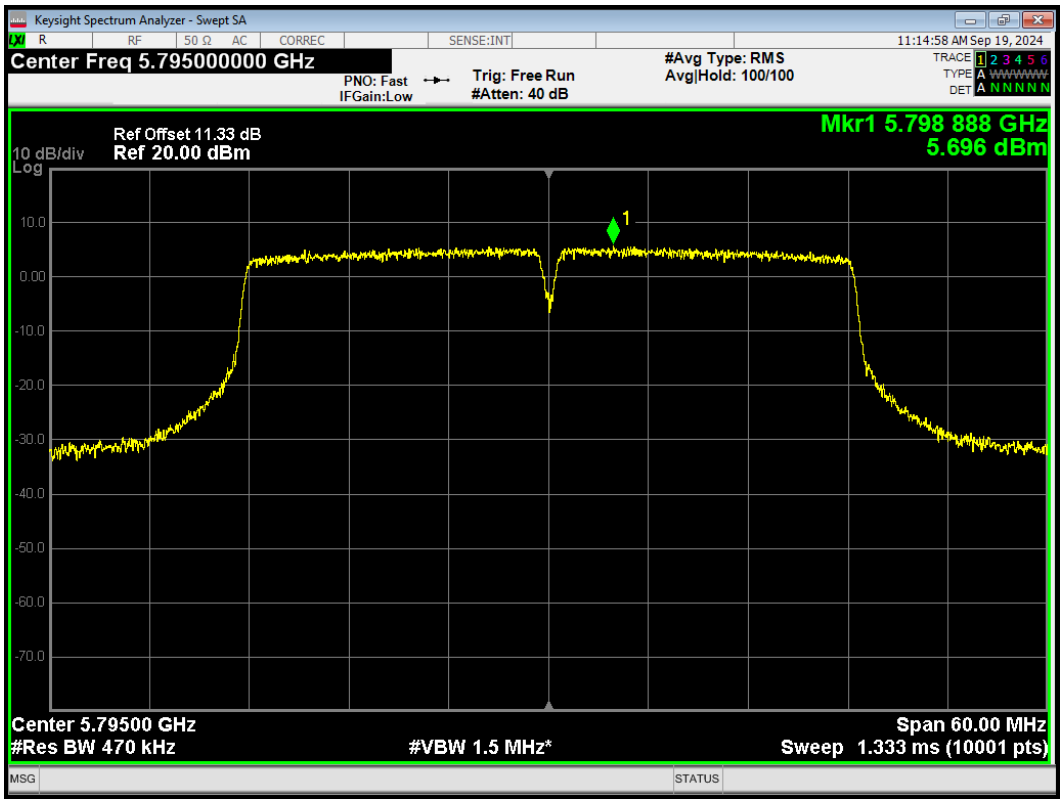
PSD 802.11ac(VHT40) 5755MHz



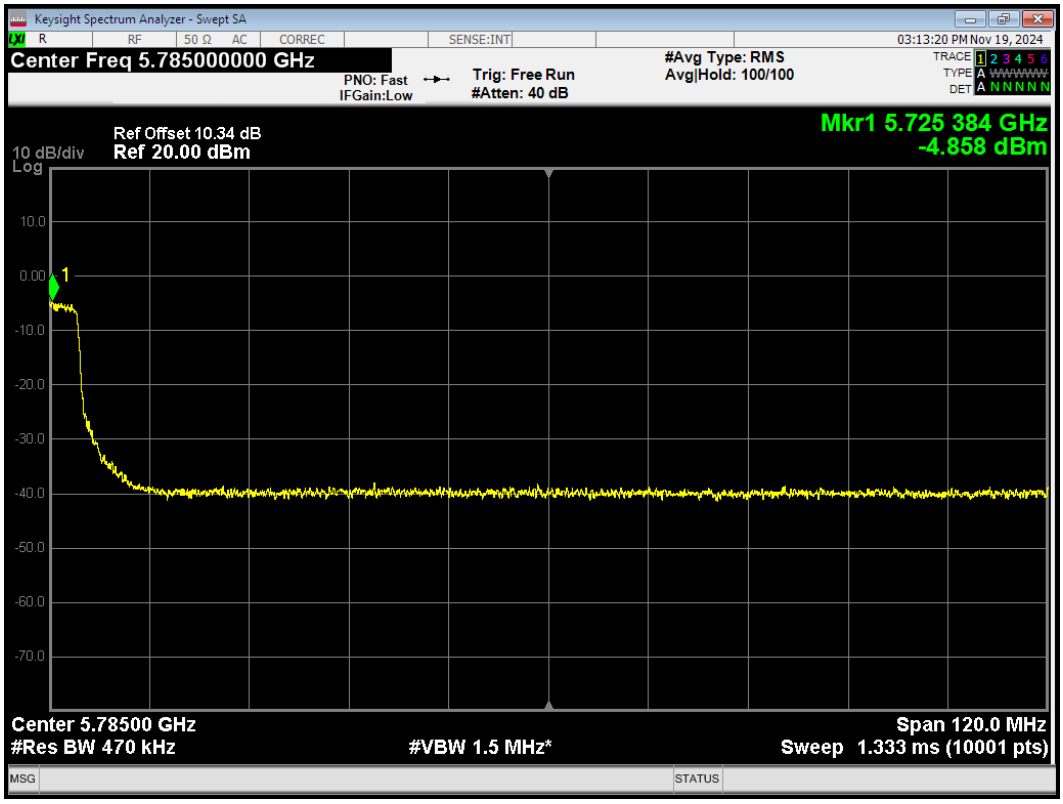
PSD 802.11ac(VHT40) 5755MHz



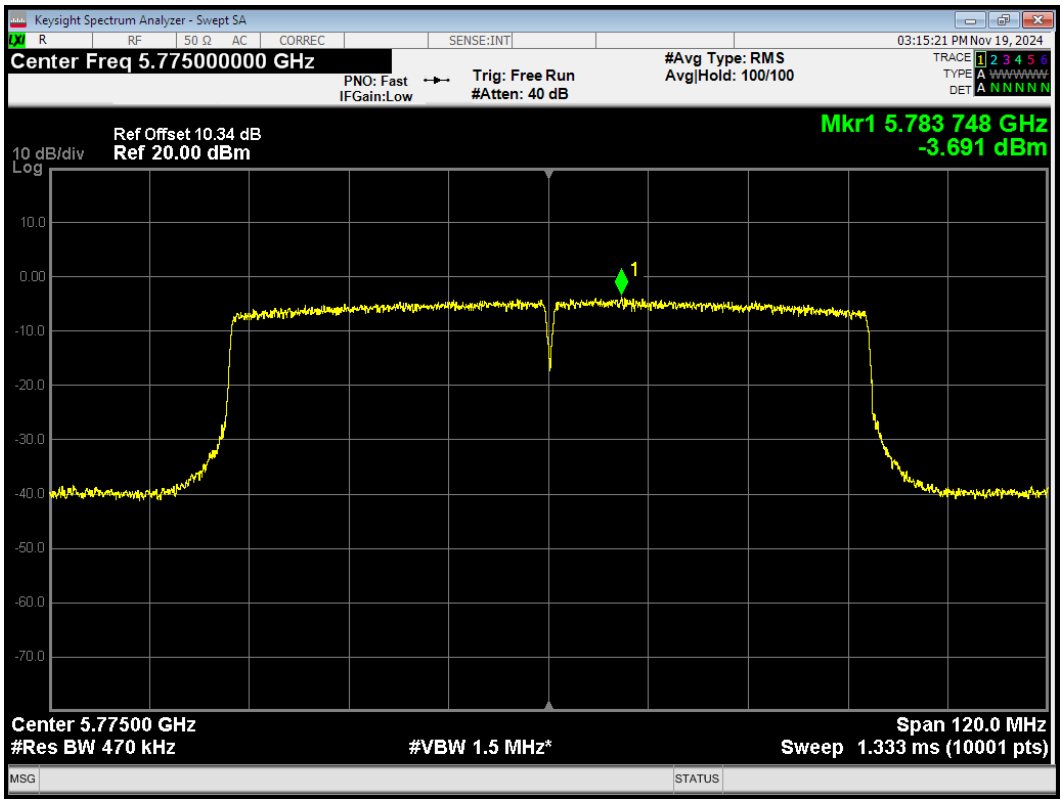
PSD 802.11ac(VHT40) 5795MHz



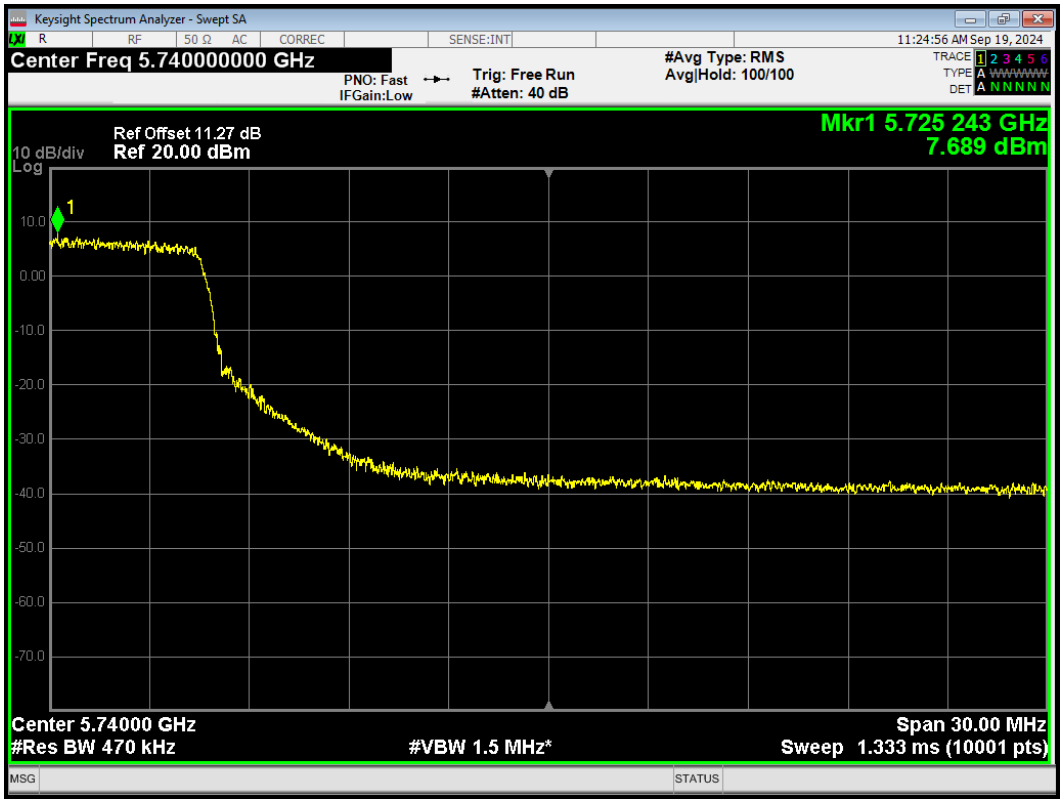
PSD 802.11ac(VHT80) 5785MHz



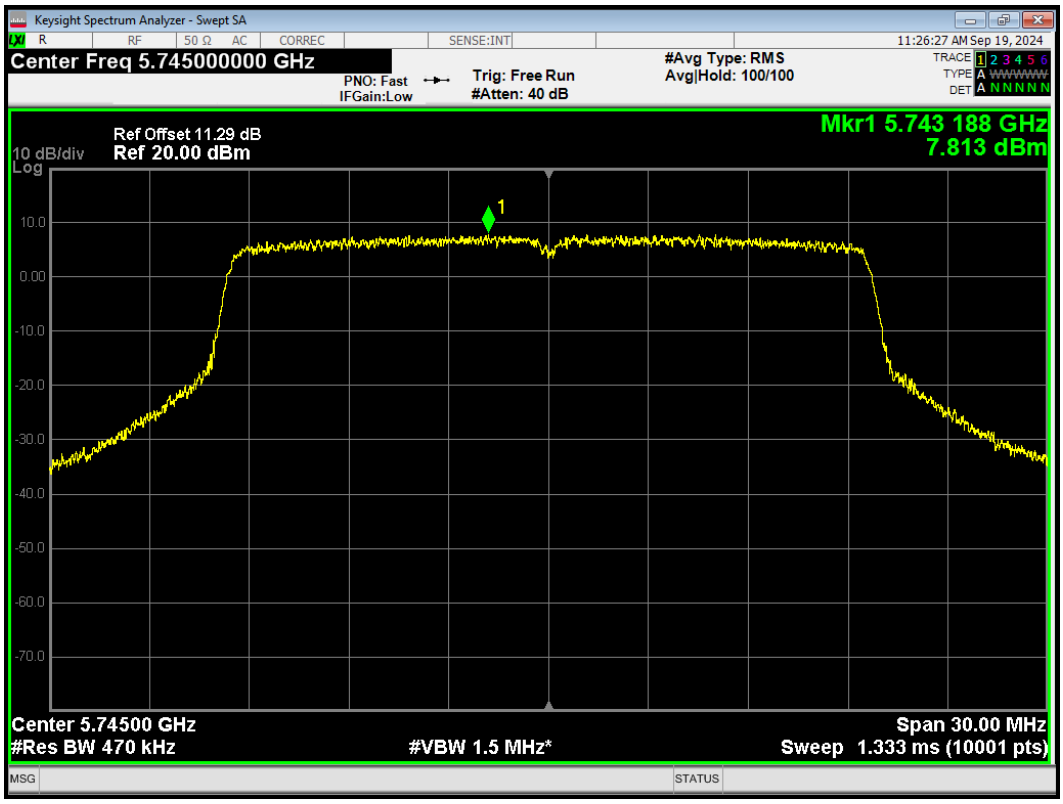
PSD 802.11ac(VHT80) 5775MHz



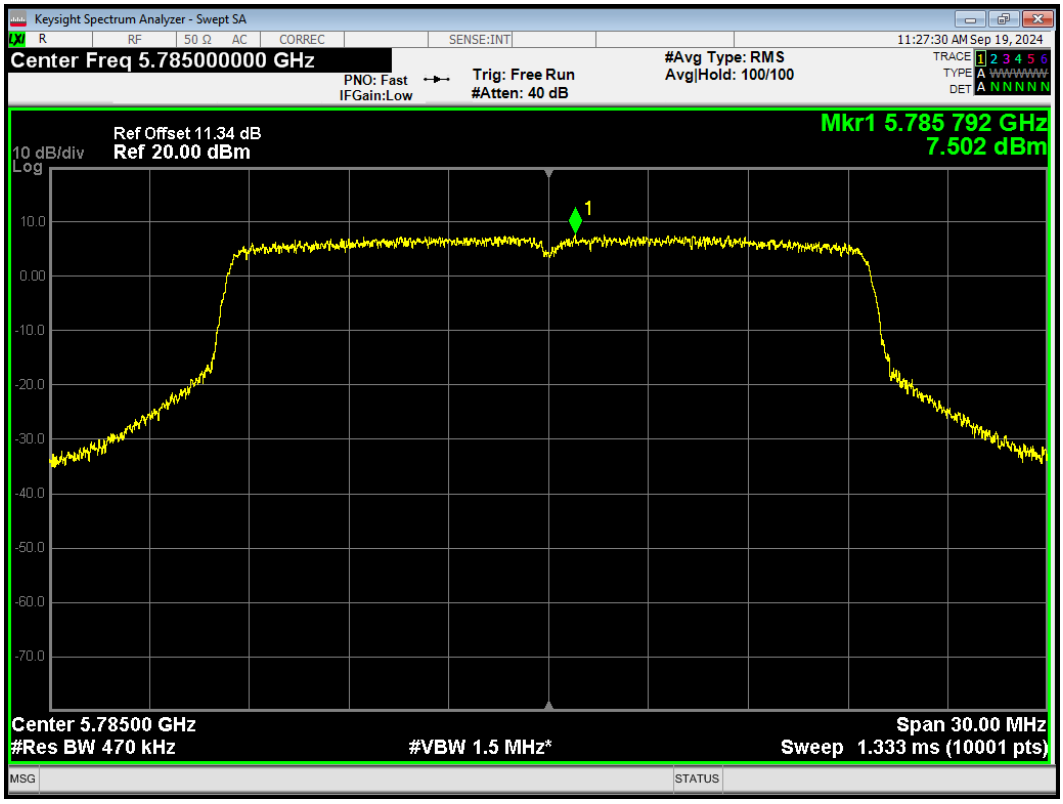
PSD 802.11ax(HE20) 5740MHz



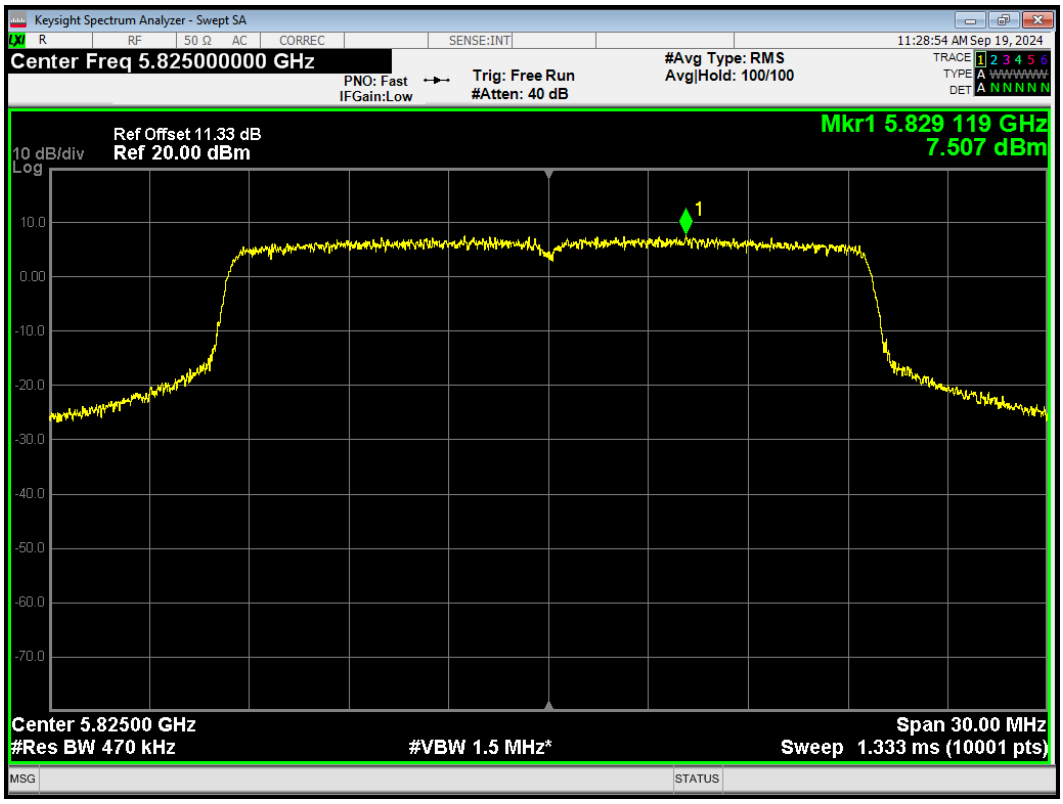
PSD 802.11ax(HE20) 5745MHz



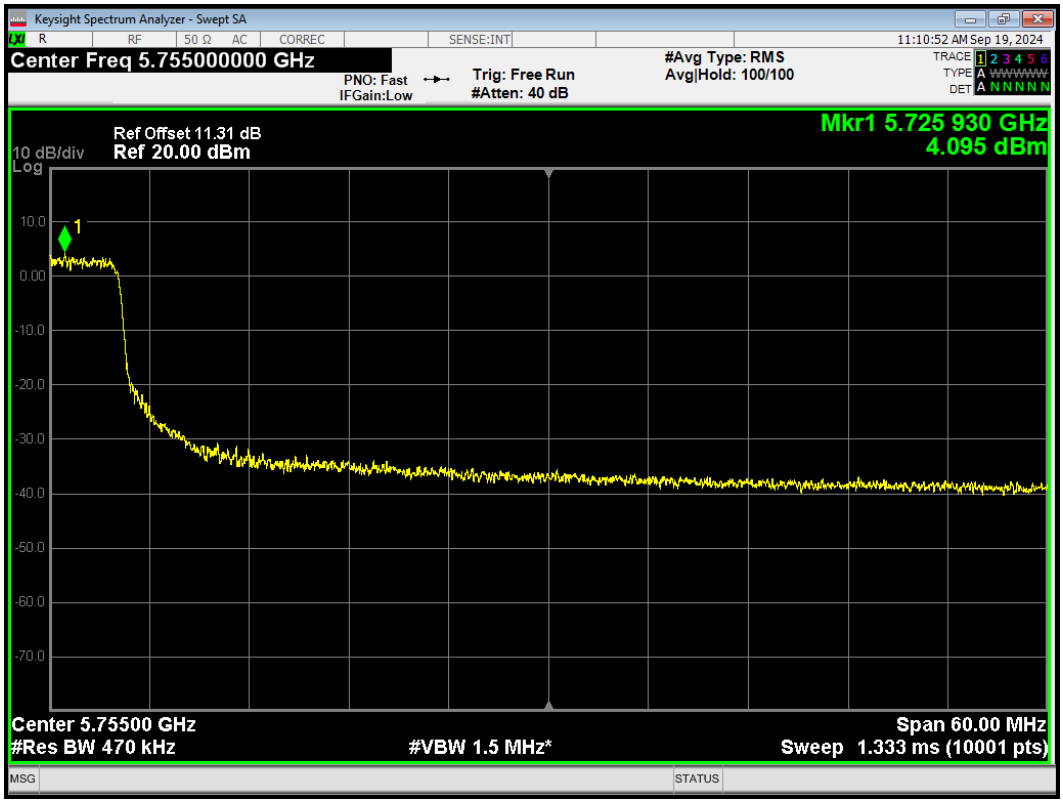
PSD 802.11ax(HE20) 5785MHz



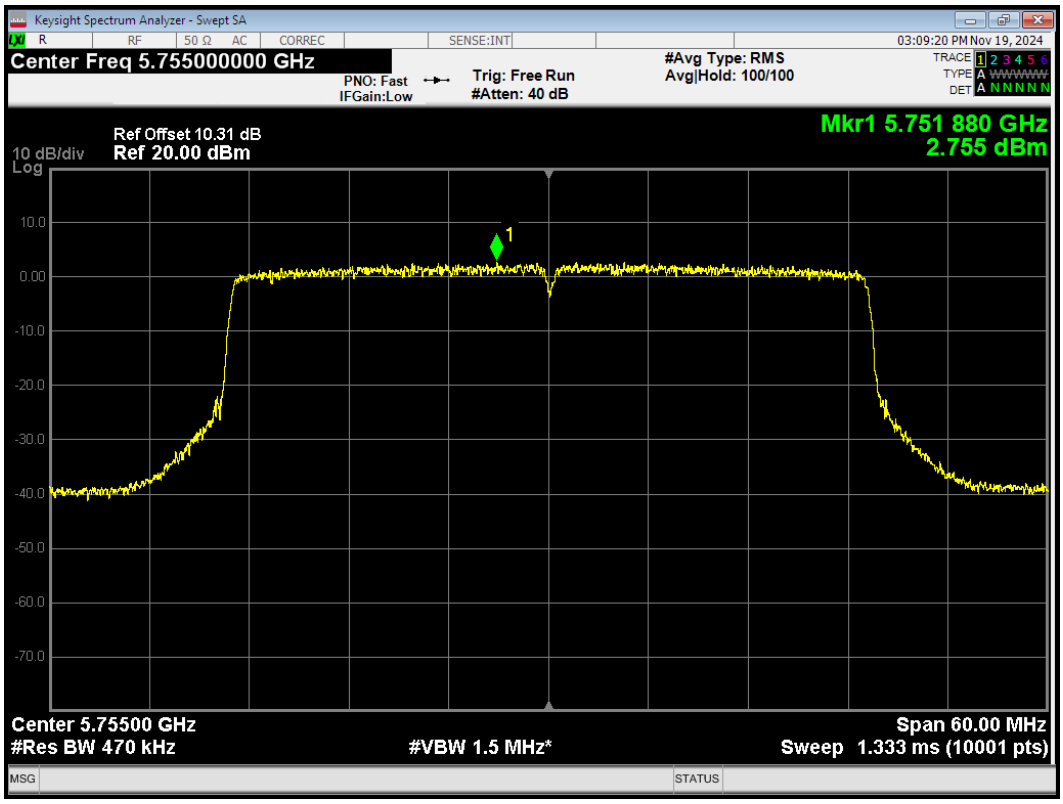
PSD 802.11ax(HE20) 5825MHz



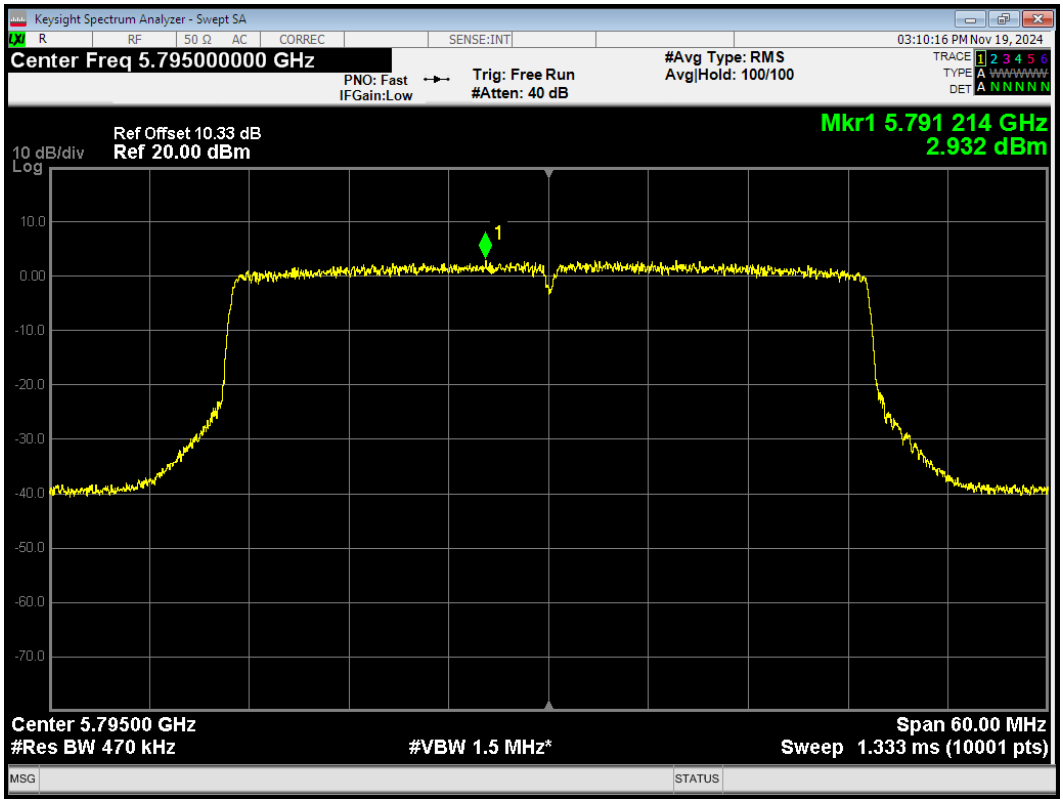
PSD 802.11ax(HE40) 5755MHz



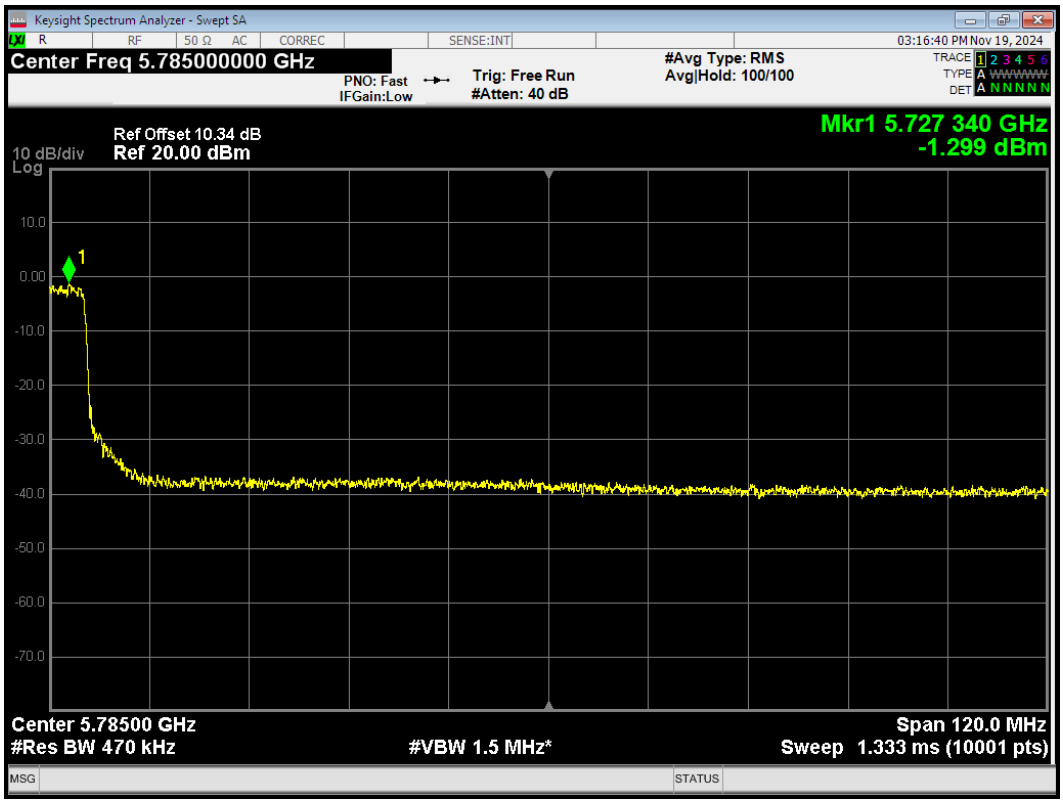
PSD 802.11ax(HE40) 5755MHz



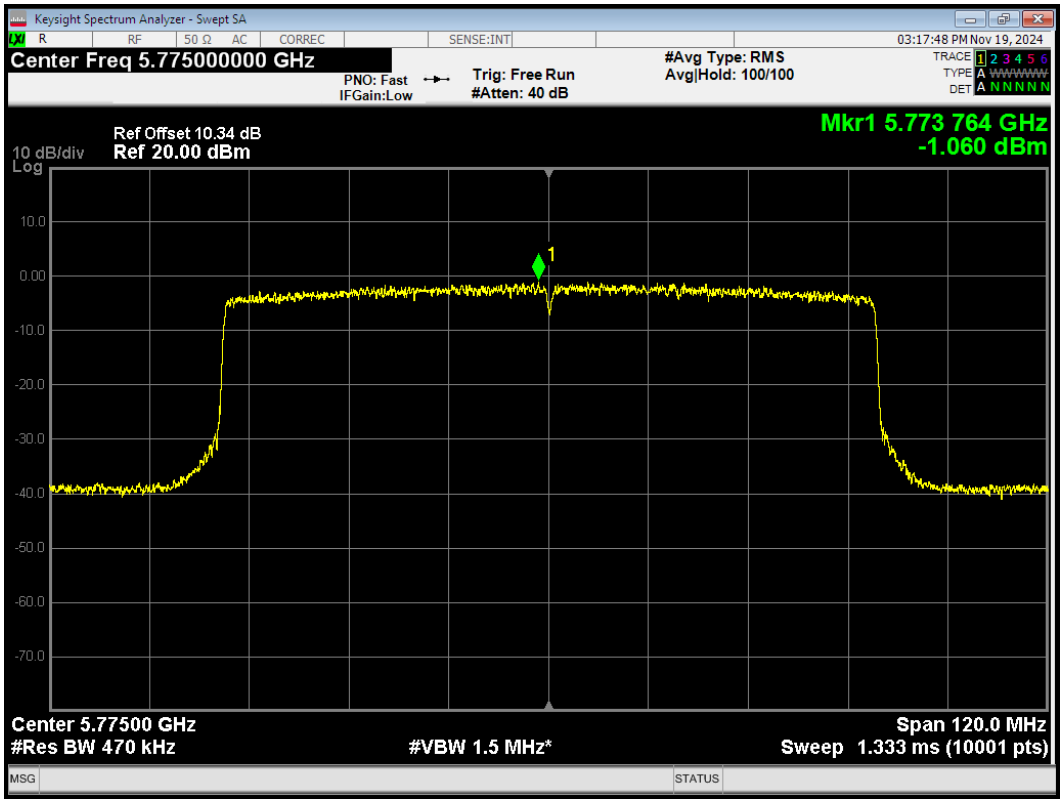
PSD 802.11ax(HE40) 5795MHz



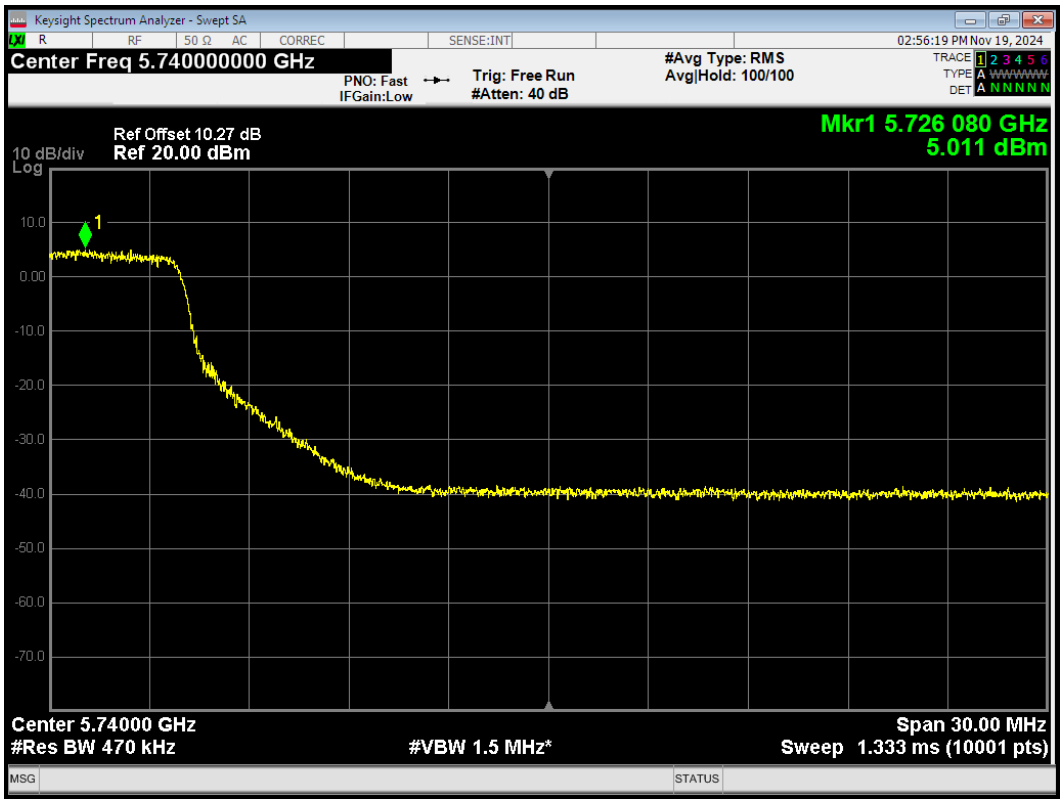
PSD 802.11ax(HE80) 5785MHz



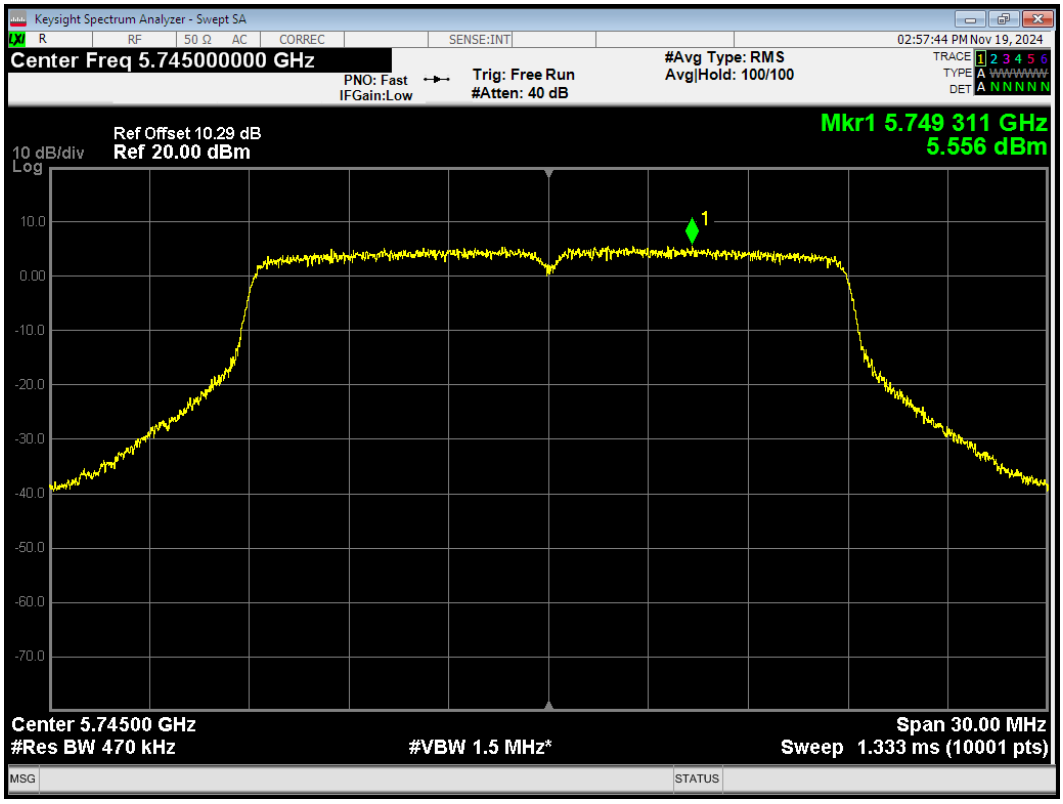
PSD 802.11ax(HE80) 5775MHz



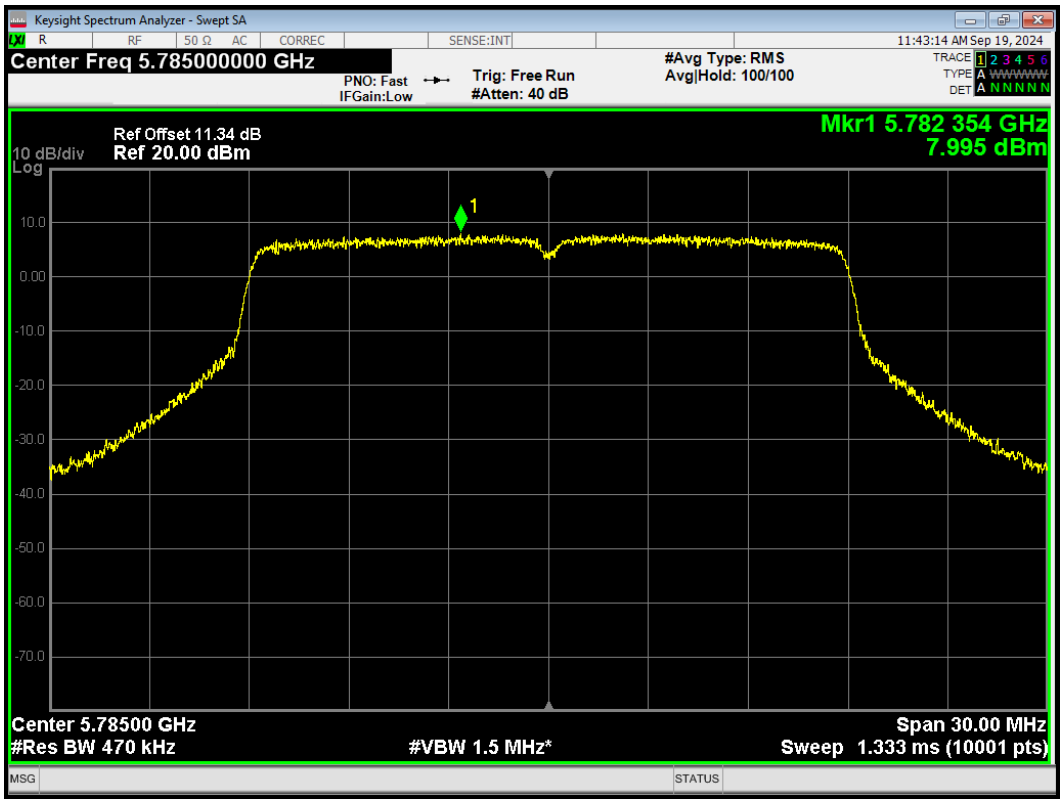
PSD 802.11n(HT20) 5740MHz



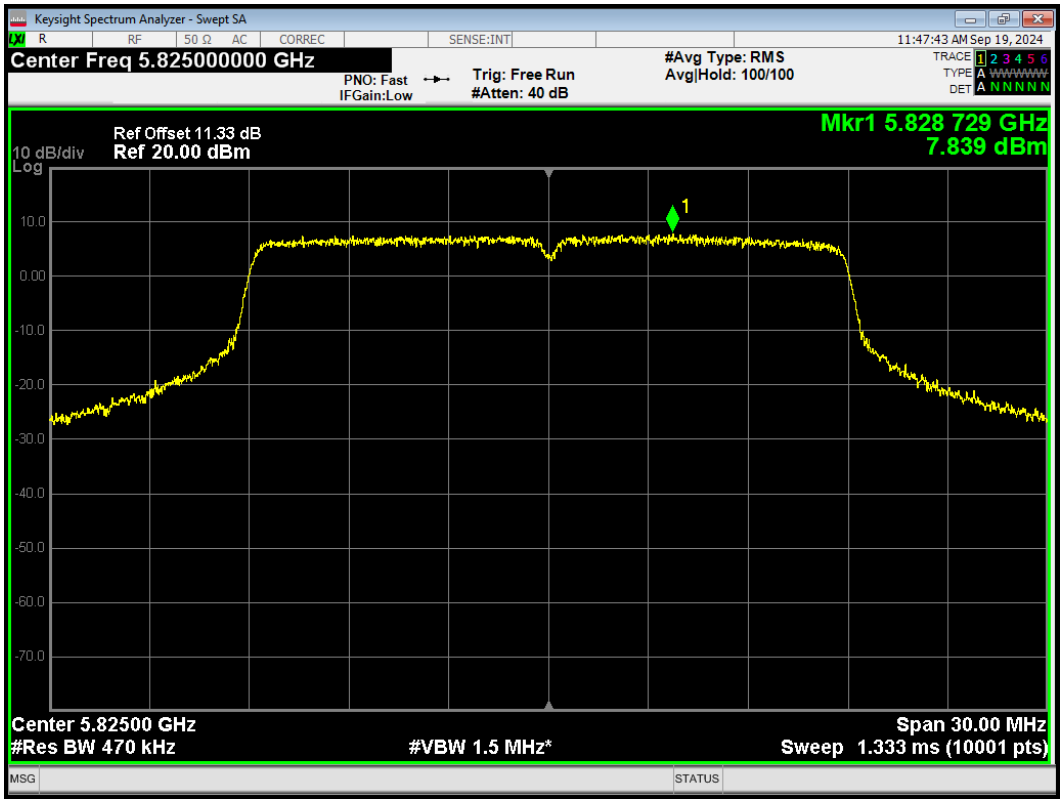
PSD 802.11n(HT20) 5745MHz



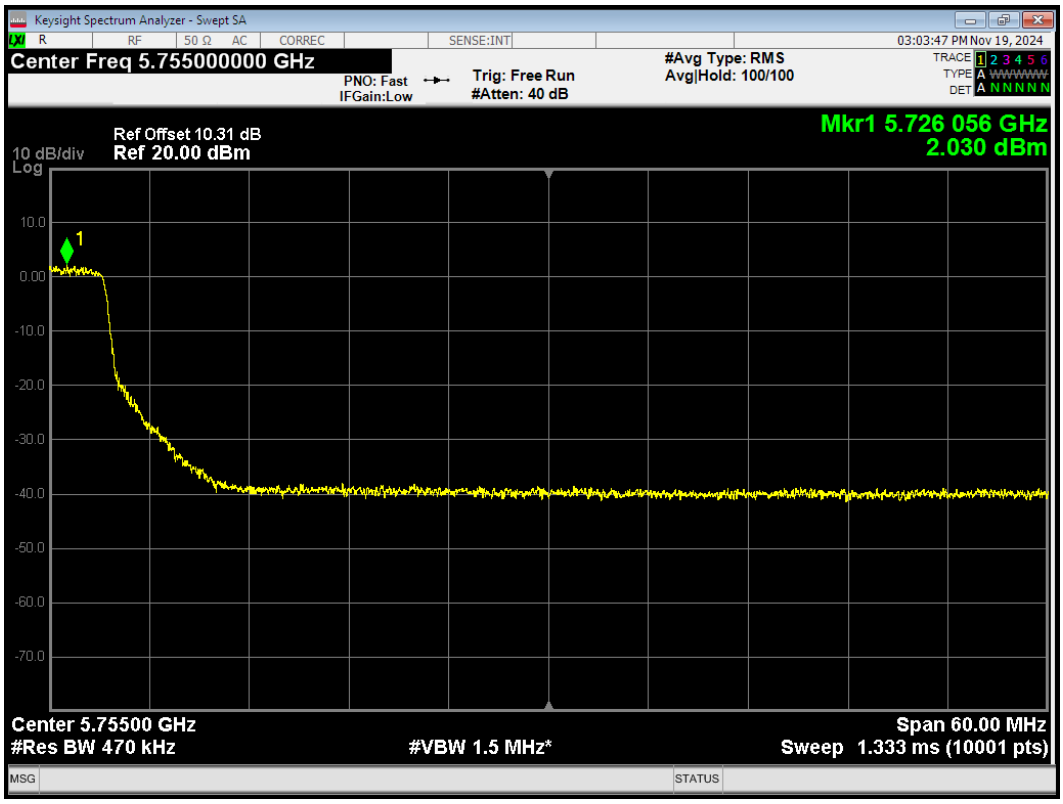
PSD 802.11n(HT20) 5785MHz



PSD 802.11n(HT20) 5825MHz



PSD 802.11n(HT40) 5755MHz



PSD 802.11n(HT40) 5755MHz