Audix Technology Corp.
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A.4 MAXIMUM PEAK OUTPUT POWER

Test Date	2022/07/11 ~ 17	Temp./Hum.	24 ~ 26°C/41 ~ 48%
Cable Loss	0.5dB	Tested By	Kuper Hsu
Test Voltage	AC 120V, 60Hz (via AC Adapter)		

A.4.1 Peak Output Power

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Max Peak Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm)Note2	Limit
		Aux	Main		Aux	Main		
802.11b	2412	22.96	23.22	23.22	3.90	2.80	26.86	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	23.65	23.98	23.98	3.90	2.80	27.55	
	2462	22.84	23.31	23.31	3.90	2.80	26.74	
	2467	22.95	22.36	22.95	4.40	4.00	27.35	
	2472	21.13	20.06	21.13	4.40	4.00	25.53	
802.11g	2412	20.67	21.70	21.70	3.90	2.80	24.57	
	2417	22.96	23.82	23.82	4.20	3.20	27.16	
	2442	23.33	24.50	24.50	3.90	2.80	27.30	
	2457	23.12	23.23	23.23	3.90	2.80	27.02	
	2462	20.86	21.86	21.86	3.90	2.80	24.76	
	2467	19.45	19.43	19.45	4.40	4.00	23.85	
	2472	16.89	17.38	17.38	4.40	4.00	21.38	

Note: 1. The results have been included cable loss.
2. E.I.R.P.= The Max. of Peak Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).

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Mode	Centre Frequency (MHz)	Peak Output Power (dBm)		Total Peak Output Power Note2(dBm)	Directional Gain Note3(dBi)	E.I.R.P Note4 (dBm)	Limit
		Aux	Main				
802.11n-HT20	2412	20.04	20.19	23.13	3.38	26.51	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	21.32	21.47	24.41	3.73	28.14	
	2422	22.64	22.68	25.67	3.73	29.40	
	2442	23.87	23.91	26.90	3.38	30.28	
	2457	22.65	22.89	25.78	3.38	29.16	
	2462	19.44	19.56	22.51	3.38	25.89	
	2467	15.65	15.47	18.57	4.20	22.77	
	2472	13.47	13.45	16.47	4.20	20.67	
802.11n-HT40	2422	20.61	20.83	23.73	3.73	27.46	
	2442	21.32	21.56	24.45	3.38	27.83	
	2452	20.21	20.33	23.28	3.38	26.66	
	2457	17.85	17.65	20.76	3.38	24.14	
	2462	15.01	14.82	17.93	3.38	21.31	
802.11ax-HE20	2412	20.81	20.35	23.60	3.38	26.98	
	2417	21.71	21.91	24.82	3.73	28.55	
	2422	18.04	17.44	20.76	3.73	24.49	
	2442	23.41	24.05	26.75	3.38	30.13	
	2457	22.85	23.11	25.99	3.38	29.37	
	2462	19.98	19.82	22.91	3.38	26.29	
	2467	16.05	15.84	18.96	4.20	23.16	
	2472	13.62	13.44	16.54	4.20	20.74	
802.11ax-HE40	2422	20.81	20.63	23.73	3.73	27.46	
	2442	21.19	21.65	24.44	3.38	27.82	
	2452	19.96	20.32	23.15	3.38	26.53	
	2457	20.21	20.51	23.37	3.38	26.75	
	2462	14.41	14.88	17.66	3.38	21.04	

Note: 1. The results have been included cable loss.
2. According to KDB 662911 D01 E)1), Total Peak power = sum to individual output power
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = 10 log[($10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10}$)/$N_{ANT}$] dBi
Directional gain= 10 log[($10^{3.9/10}$ +$10^{2.8/10}$)/2]= 3.38dBi
Directional gain= 10 log[($10^{4.2/10}$ +$10^{3.2/10}$)/2]= 3.73dBi
Directional gain= 10 log[($10^{4.4/10}$ +$10^{4.0/10}$)/2]= 4.20dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).
4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

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Mode	Centre Frequency (MHz)	RU Configuration	Peak Output Power (dBm)		Total Peak Output Power Note2(dBm)	Directional Gain Note3(dBi)	E.I.R.P Note4 (dBm)	Limit
			Aux	Main				
802.11ax-HE20	2412	26/30	22.01	22.93	25.50	3.38	28.88	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	22.64	21.87	25.28	3.38	28.66	
		106/53	22.87	21.94	25.44	3.38	28.82	
	2472	26/8	19.55	18.64	22.13	4.20	26.33	
		52/40	19.89	20.18	23.05	4.20	27.25	
		106/54	20.11	19.09	22.64	4.20	26.84	
802.11ax-HE40	2422	242/61	19.87	20.22	23.06	3.73	26.79	
	2462	242/62	20.05	20.02	23.04	3.38	26.42	

Note: 1. The results have been included cable loss.
2. According to KDB 662911 D01 E)1), Total peak power = sum to individual output power
3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})/N_{ANT}]$ dBi
Directional gain= $10 \log[(10^{3.9/10} + 10^{2.8/10})/2]$= 3.38dBi
Directional gain= $10 \log[(10^{4.2/10} + 10^{3.2/10})/2]$= 3.73dBi
Directional gain= $10 \log[(10^{4.4/10} + 10^{4.0/10})/2]$= 4.20dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).
4. E.I.R.P.= The Total Peak Output Power (dBm)+ Directional Gain (dBi).

Mode	Centre Frequency (MHz)	Peak Output Power (dBm)	Antenna Gain (dBi)	E.I.R.P (dBm)Note2	Limit
		Aux	Aux		
BLE (1Mbps)	2402	5.62	2.80	8.42	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2440	5.96	2.80	8.76	
	2480	5.95	4.00	9.95	
BLE (2Mbps)	2402	5.59	2.80	8.39	
	2440	5.94	2.80	8.74	
	2480	5.93	4.00	9.93	
BLE (PHY Coded S2)	2402	5.58	2.80	8.38	
	2440	5.90	2.80	8.70	
	2480	5.91	4.00	9.91	
BLE (PHY Coded S8)	2402	5.59	2.80	8.39	
	2440	5.90	2.80	8.70	
	2480	5.90	4.00	9.90	

Note: 1. The results have been included cable loss.
2. E.I.R.P.= The Peak Output Power (dBm)+ Antenna Gain (dBi).

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A.4.2 Average Output Power (Reporting only)

Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Max Average Output Power (dBm)	Antenna Gain (dBi)		E.I.R.P (dBm)[Note 2]	Limit
		Aux	Main			Aux	Main		
802.11b	2412	19.77	20.03	N/A	20.03	3.90	2.80	23.67	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2442	20.39	19.88		20.39	3.90	2.80	24.29	
	2462	20.11	19.83		20.11	3.90	2.80	24.01	
	2467	18.74	18.82		18.82	4.40	4.00	23.14	
	2472	17.48	15.06		17.48	4.40	4.00	21.88	
802.11g	2412	16.70	16.61	0.159	16.86	3.90	2.80	20.76	
	2417	17.91	18.88		19.04	4.20	3.20	22.27	
	2442	18.83	19.84		19.99	3.90	2.80	22.89	
	2457	18.39	18.32		18.55	3.90	2.80	22.45	
	2462	16.23	17.48		17.64	3.90	2.80	20.44	
	2467	14.38	14.45		14.60	4.40	4.00	18.94	
	2472	11.02	11.18		11.33	4.40	4.00	15.58	

Note: 1. The results have been included cable loss.
2. E.I.R.P.= The Max. of Average Output Power (AUX or Main)(dBm)+ Antenna Gain (dBi).
3. Max Average Output Power (dBm) = Max of each average output power (dBm)+ Duty Cycle Factor (dB) when duty cycle is less than 98%.

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Mode	Centre Frequency (MHz)	Average Output Power (dBm)		Duty cycle factor (dB) 10log (1/x)	Total Average Output Power Note2(dBm)	Directional Gain Note 3(dBi)	Average Output Power (E.I.R.P)Note4 (dBm)	Limit
		Aux	Main					
802.11n-HT20	2412	15.06	15.55	N/A	18.32	3.38	21.70	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
	2417	17.27	16.24		19.79	3.73	23.52	
	2422	18.20	17.94		21.08	3.73	24.81	
	2442	18.91	19.54		22.25	3.38	25.63	
	2457	18.27	18.53		21.41	3.38	24.79	
	2462	14.13	14.53		17.34	3.38	20.72	
	2467	10.84	11.01		13.94	4.20	18.14	
	2472	7.76	7.82		10.80	4.20	15.00	
802.11n-HT40	2422	14.93	14.13	0.119	17.68	3.73	21.41	
	2442	15.01	15.51		18.40	3.38	21.78	
	2452	13.68	14.39		17.18	3.38	20.56	
	2457	11.62	11.49		14.68	3.38	18.06	
	2462	8.15	8.76		11.59	3.38	14.97	
802.11ax-HE20	2412	15.53	15.49	N/A	18.52	3.38	21.90	
	2417	16.48	17.48		20.02	3.73	23.75	
	2422	17.25	17.61		20.44	3.73	24.17	
	2442	19.17	19.83		22.52	3.38	25.90	
	2457	18.27	17.44		20.89	3.38	24.27	
	2462	14.05	15.15		17.64	3.38	21.02	
	2467	10.49	11.14		13.84	4.20	18.04	
	2472	6.73	7.40		10.09	4.20	14.29	
802.11ax-HE40	2422	14.14	14.39	0.128	17.40	3.73	21.13	
	2442	14.42	15.23		17.98	3.38	21.36	
	2452	13.13	13.53		16.47	3.38	19.85	
	2457	14.08	14.09		17.23	3.38	20.61	
	2462	7.86	7.68		10.91	3.38	14.29	

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total Ave power = sum to individual output power + duty cycle factor (dB), when duty cycle is less than 98%.

3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = 10 log[$(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})/N_{ANT}$] dBi
Directional gain= 10 log[$(10^{3.9/10} + 10^{2.8/10})/2$]= 3.38dBi
Directional gain= 10 log[$(10^{4.2/10} + 10^{3.2/10})/2$]= 3.73dBi
Directional gain= 10 log[$(10^{4.4/10} + 10^{4.0/10})/2$]= 4.20dBi

The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

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Mode	Centre Frequency (MHz)	RU Configuration	Average Output Power (dBm)		Duty cycle factor (dB) 10log	Total Average Output Power Note2 (dBm)	Directional Gain Note3 (dBi)	Average Output Power (E.I.R.P) Note4	Limit
			Aux	Main					
802.11ax-HE20	2412	26/30	17.77	17.49	0.123	20.77	3.38	24.15	<30dBm (Maximum Peak Output Power) <36dBm (E.I.R.P)
		52/37	17.72	18.20		21.10	3.38	24.48	
		106/53	18.17	18.05		21.24	3.38	24.62	
	2472	26/8	5.50	5.78		8.78	4.20	12.98	
		52/40	5.78	6.35		9.21	4.20	13.41	
		106/54	6.36	6.45		9.54	4.20	13.74	
802.11ax-HE40	2422	242/61	14.55	15.56	N/A	18.09	3.73	21.82	
	2462	242/62	7.26	8.08		10.70	3.38	14.08	

Note: 1. The results have been included cable loss.

2. According to KDB 662911 D01 E)1), Total Ave power = sum to individual output power + duty cycle factor (dB), when duty cycle is less than 98%.

3. According to KDB 662911 D01 d) ii), transmit signals are completely uncorrelated, then
Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})/N_{ANT}]$ dBi
Directional gain= $10 \log[(10^{3.9/10} + 10^{2.8/10})/2]$= 3.38dBi
Directional gain= $10 \log[(10^{4.2/10} + 10^{3.2/10})/2]$= 3.73dBi
Directional gain= $10 \log[(10^{4.4/10} + 10^{4.0/10})/2]$= 4.20dBi
The MIMO is uncorrelated and supported SDM(Spatial Division Multiplexing) mode only. This radio device doesn't support beamforming and Cyclic Delay Diversity (CDD).

4. E.I.R.P.= The Total Average Output Power (dBm)+ Directional Gain (dBi).

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A.4.3 Measurement Plots

BLE	
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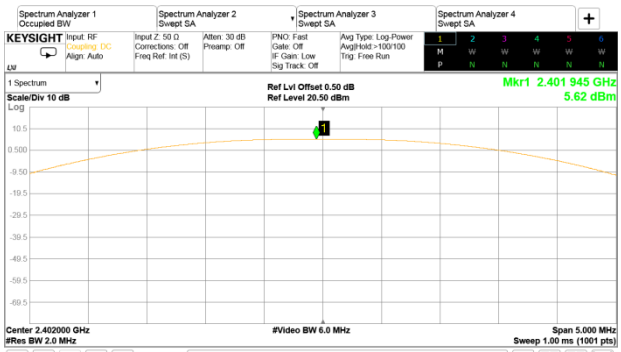	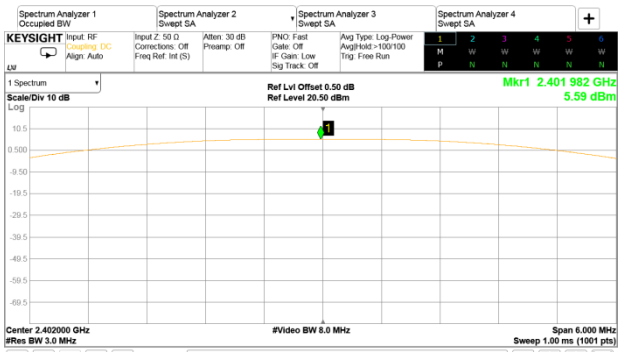
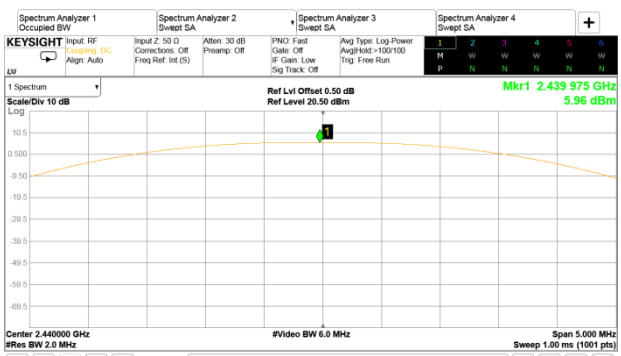	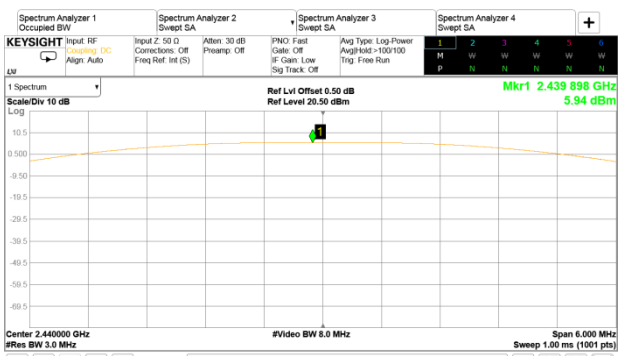
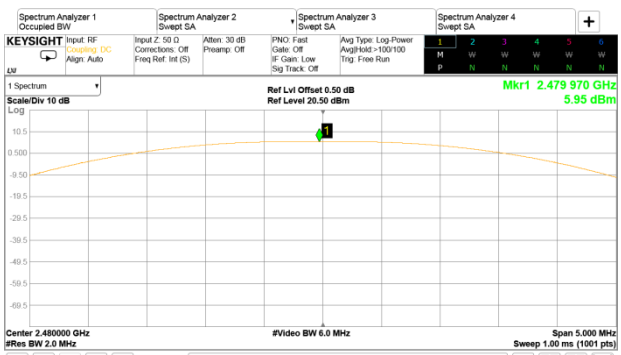	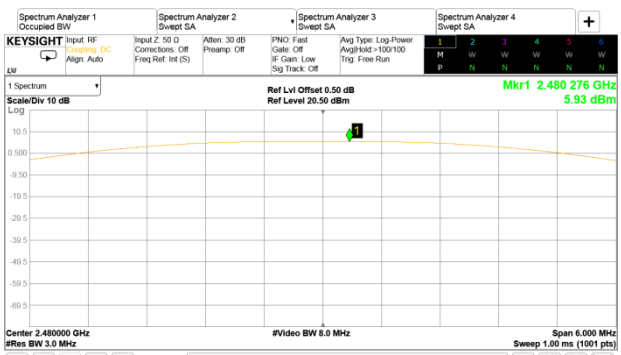

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BLE	
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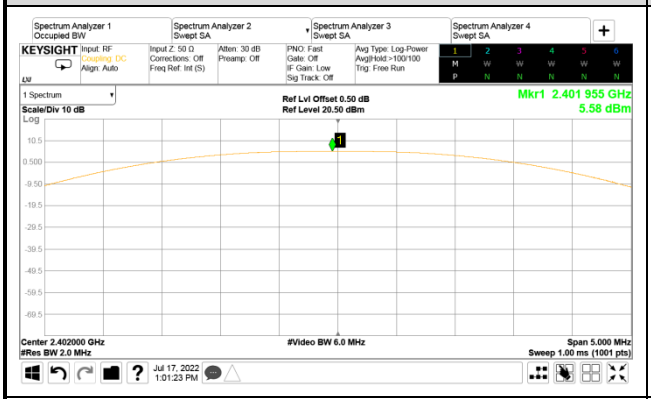	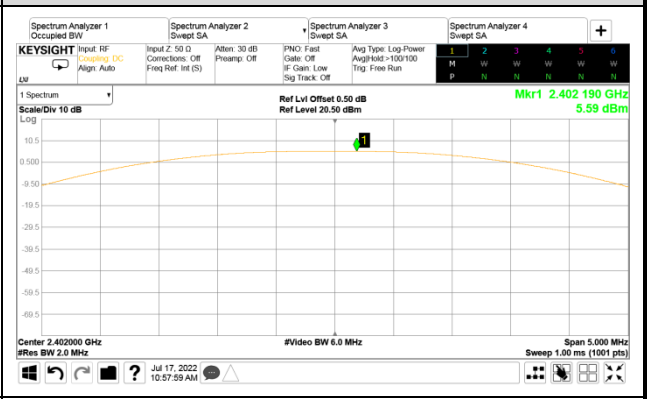
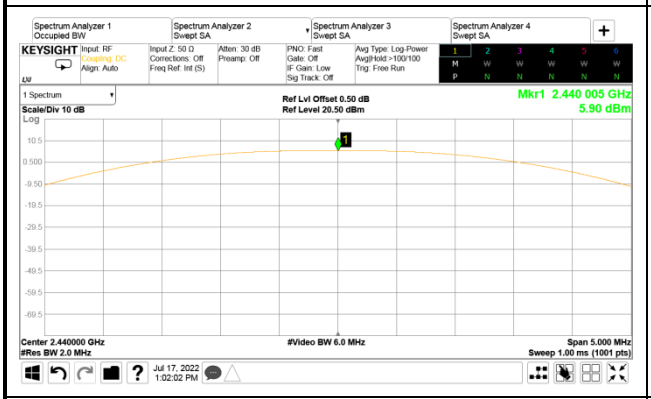	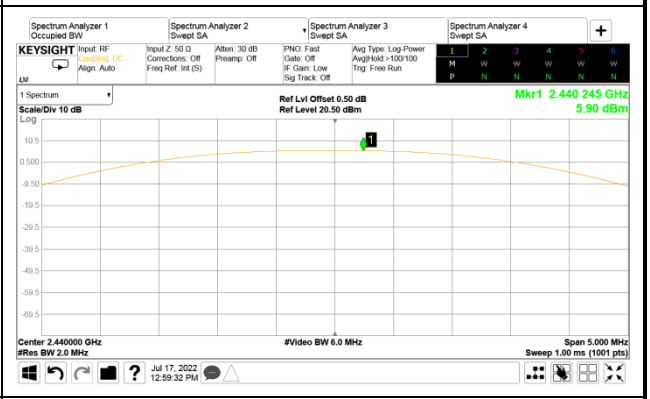
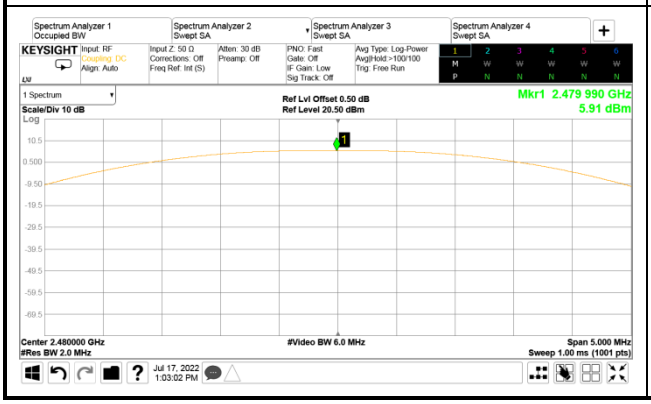	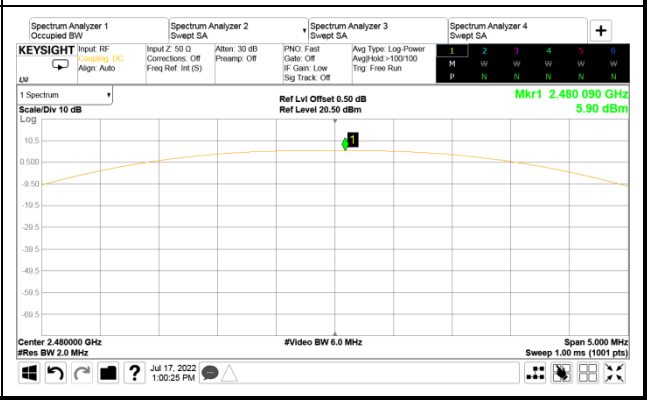

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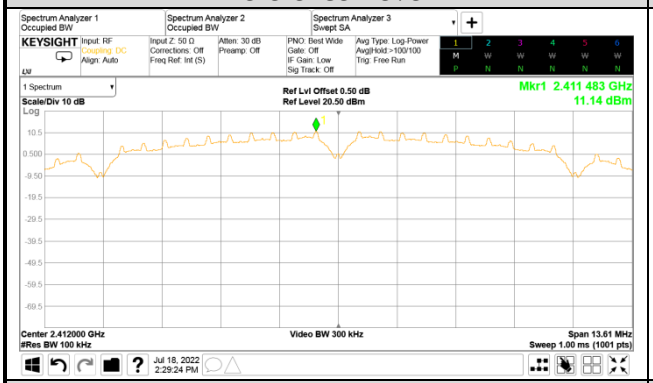
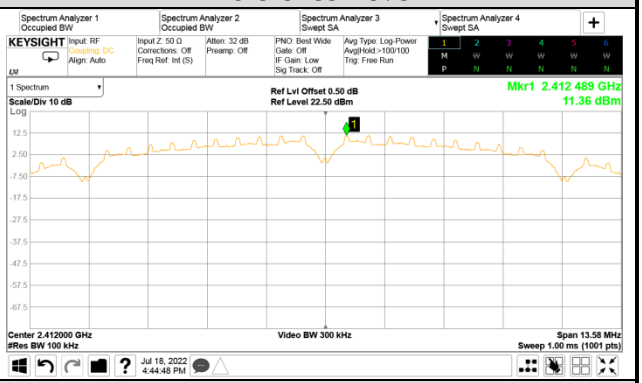
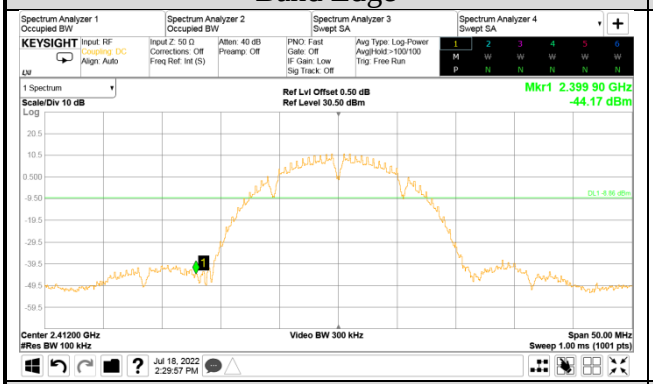
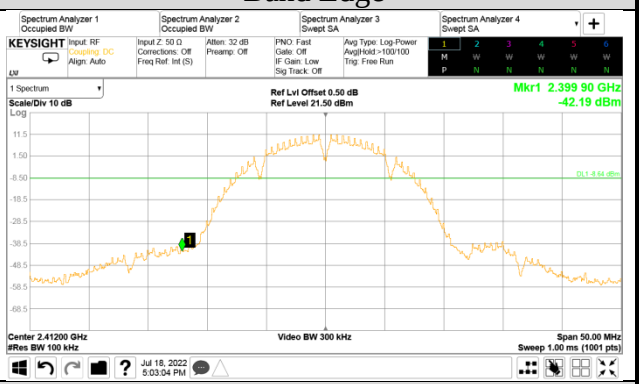
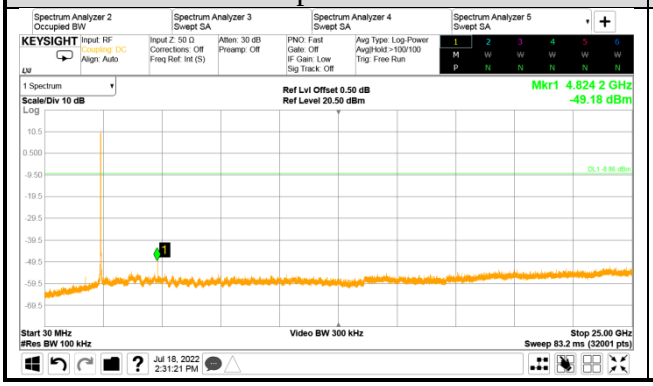
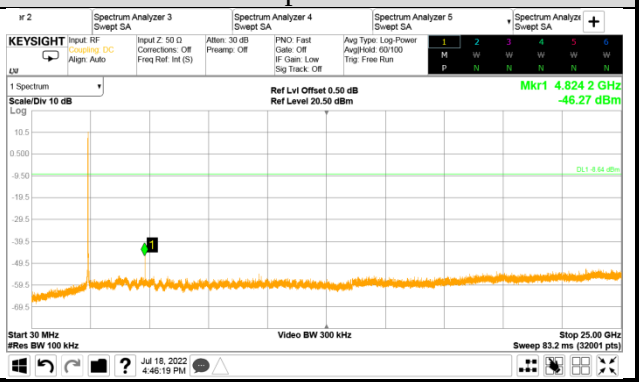
A.5 EMISSION LIMITATIONS

Test Date	2022/07/18	Temp./Hum.	26°C/48%
Cable Loss	0.50dB	Tested By	Martin Chen
Test Voltage	AC 120V, 60Hz (via AC Adapter)		
Simultaneous Factor 10 log(N_{ANT})(Note: where N_{ANT} is the number of outputs)			802.11b/g/BLE: 0dB, 802.11n-HT20/40: 3dB, 802.11ax-HE20/40: 3dB

802.11b	
TX 2412MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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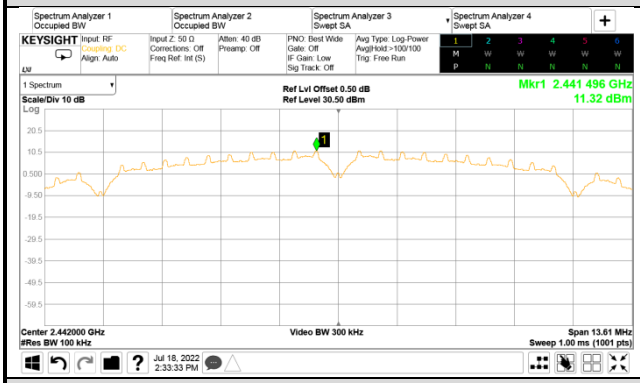
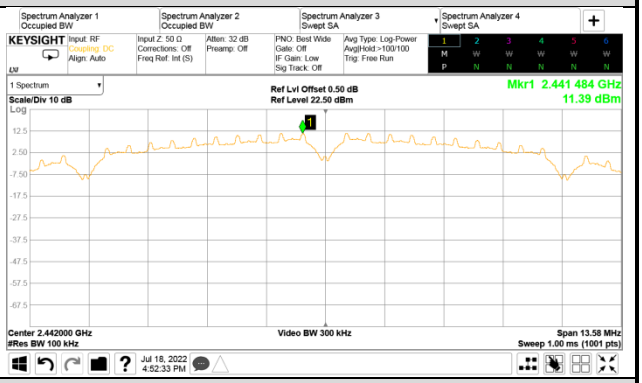
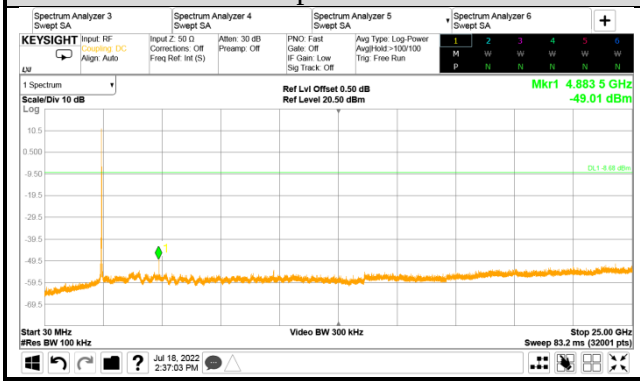
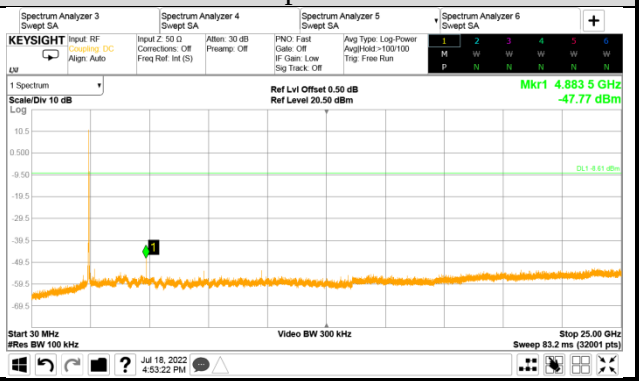
802.11b	
TX 2442MHz	
AUX	Main
Reference Level	Reference Level
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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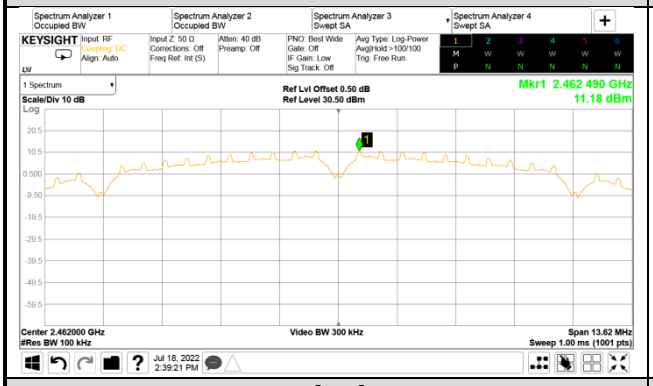
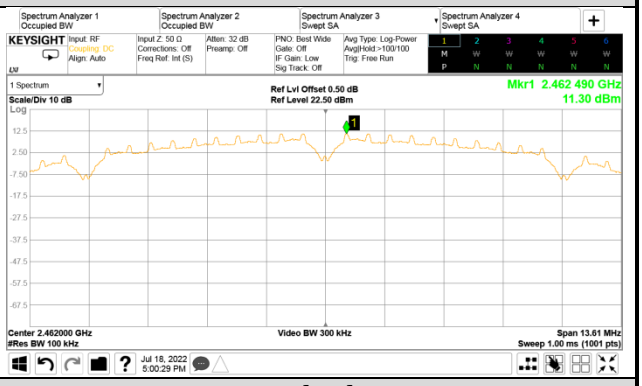
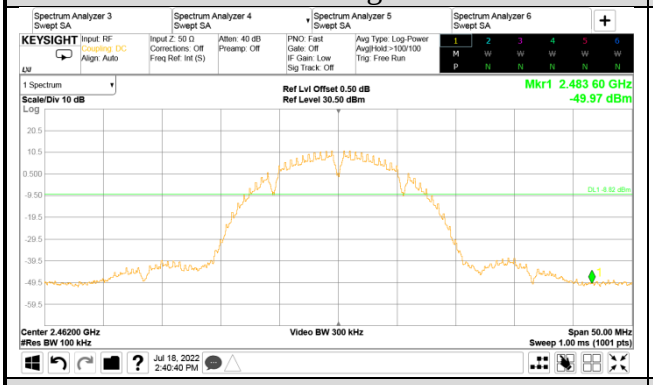
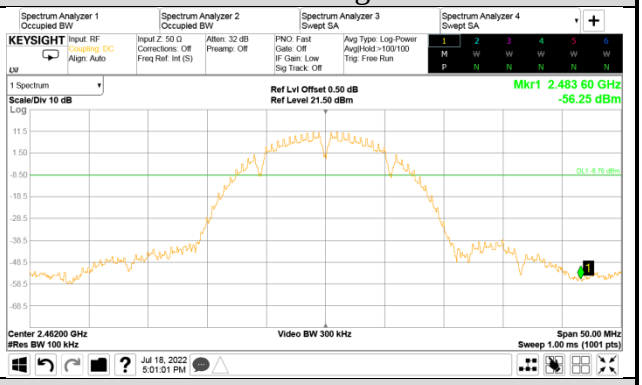
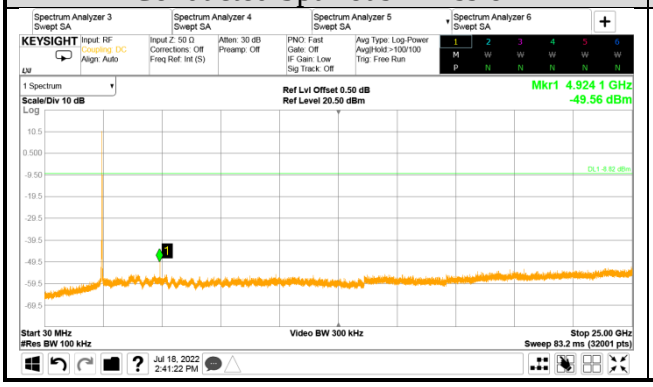
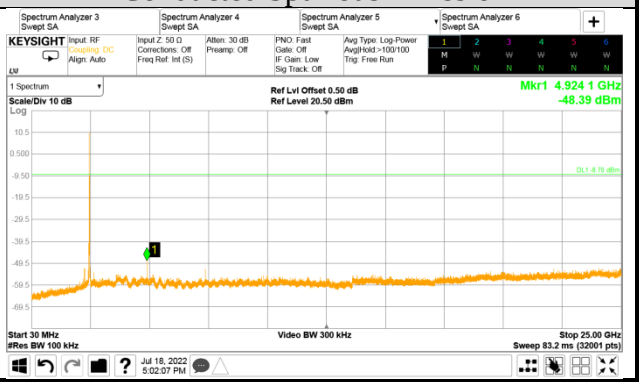
802.11b	
TX 2462MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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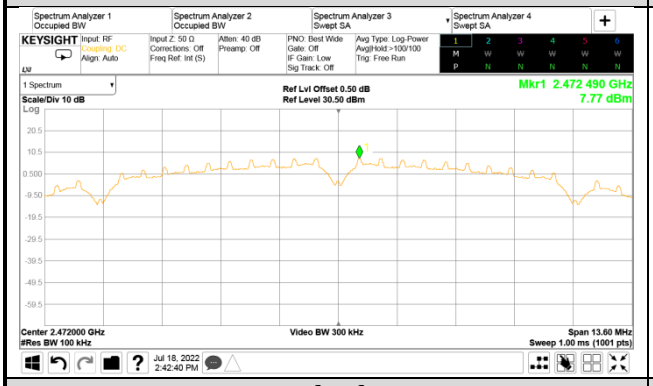
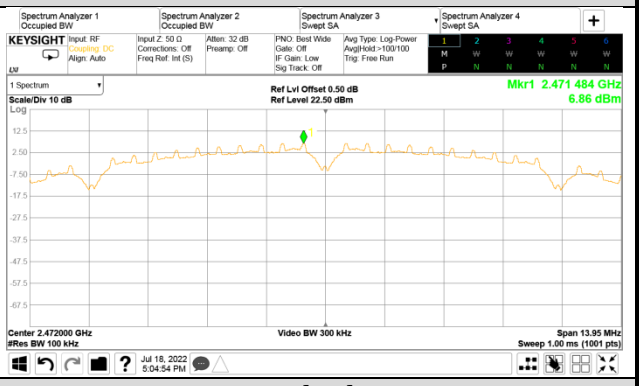
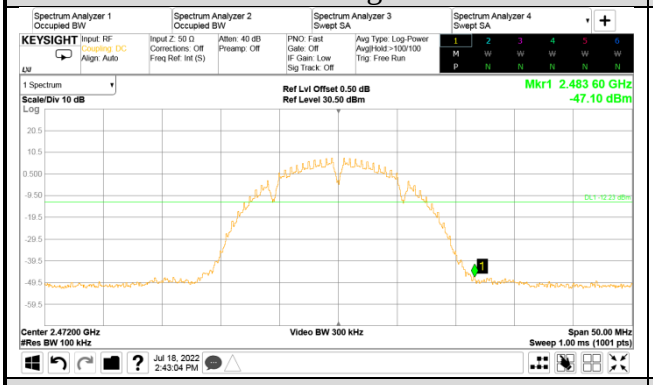
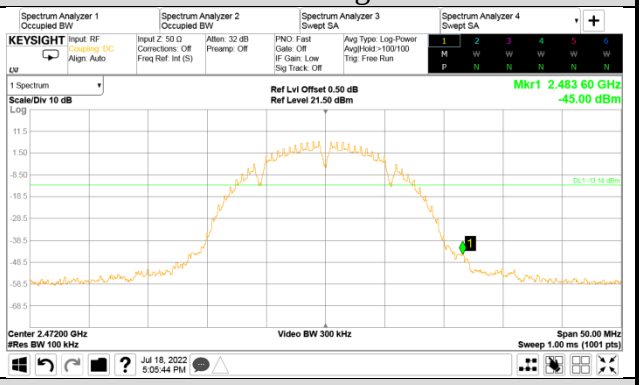
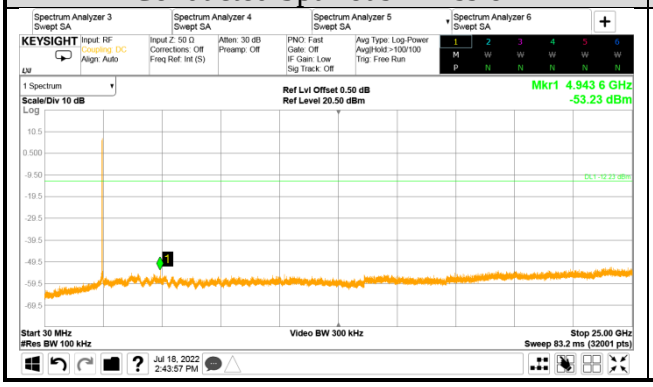
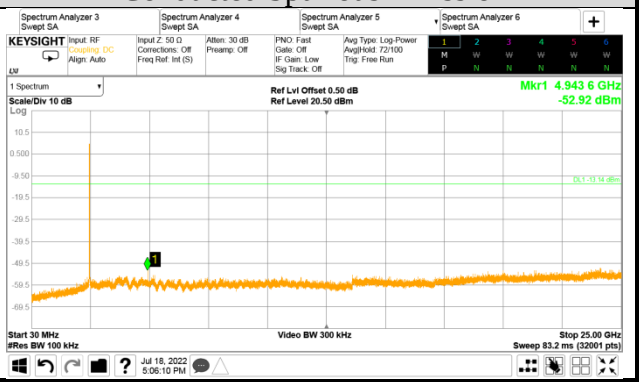
802.11b	
TX 2472MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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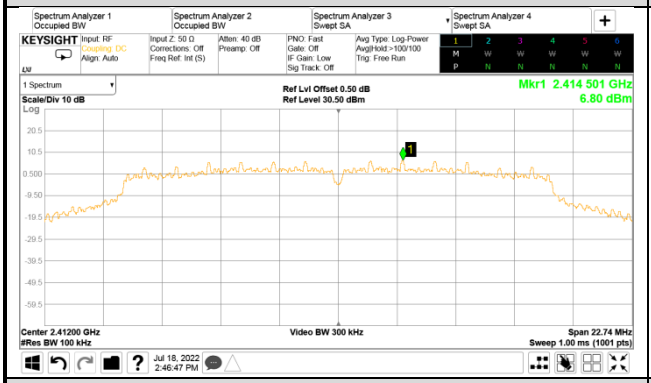
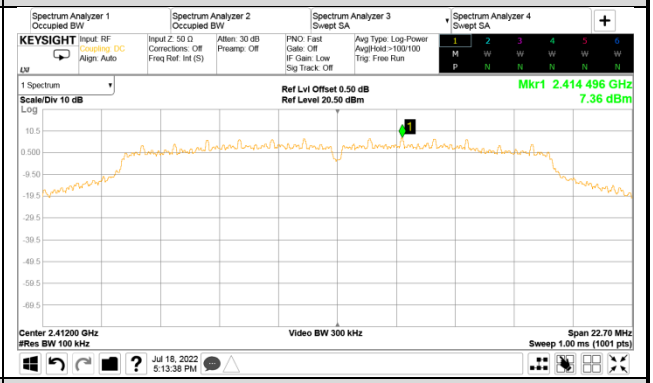
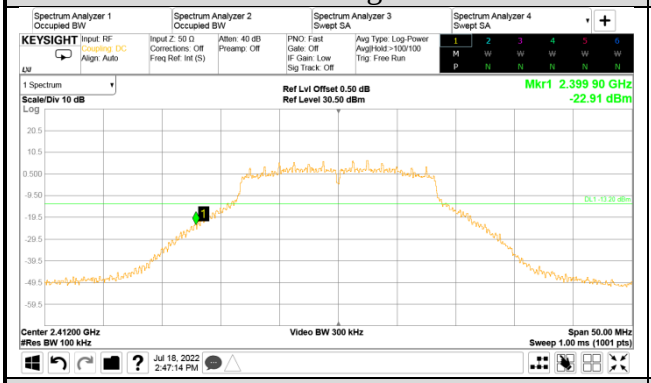
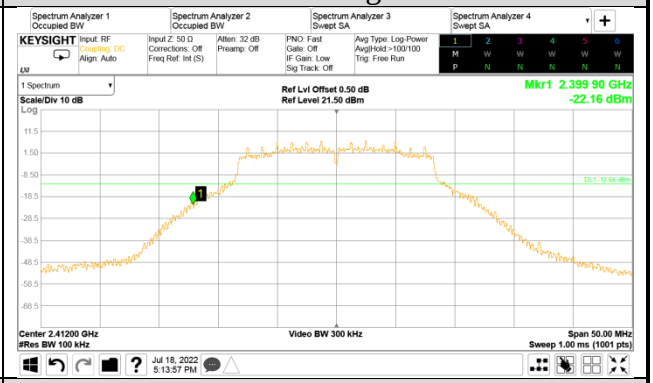
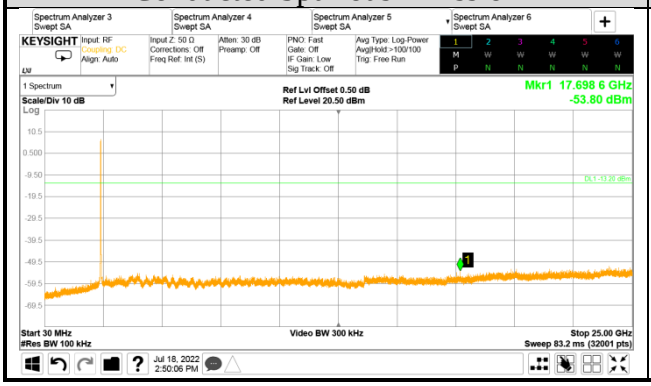
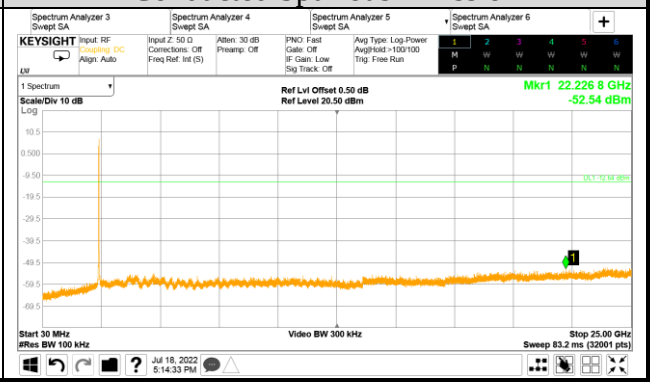
802.11g	
TX 2412MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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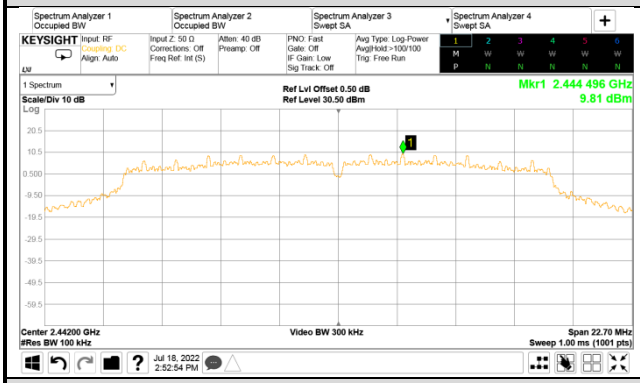
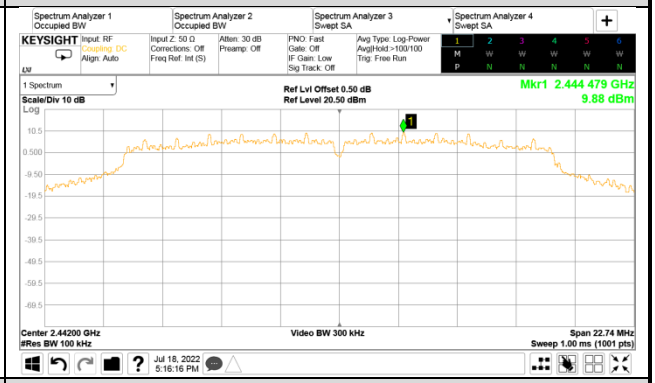
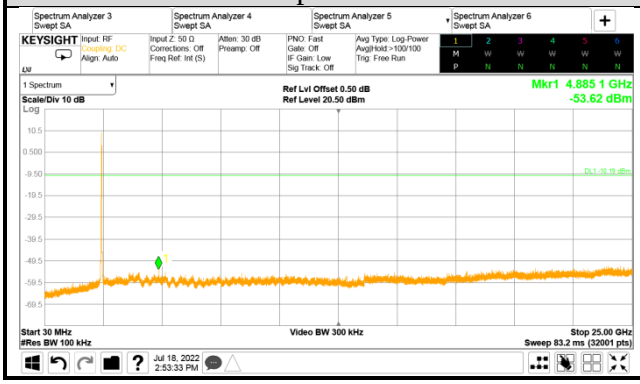
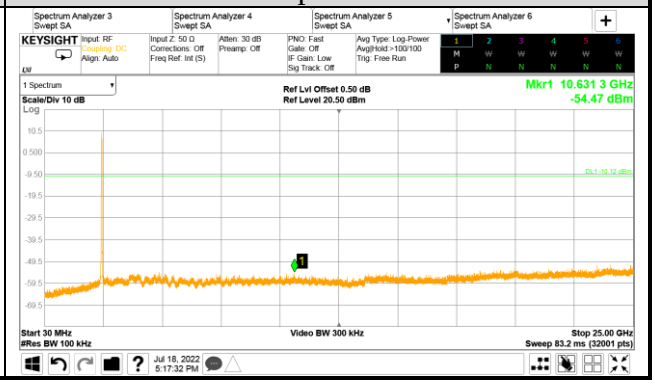
802.11g	
TX 2442MHz	
AUX	Main
Reference Level	Reference Level
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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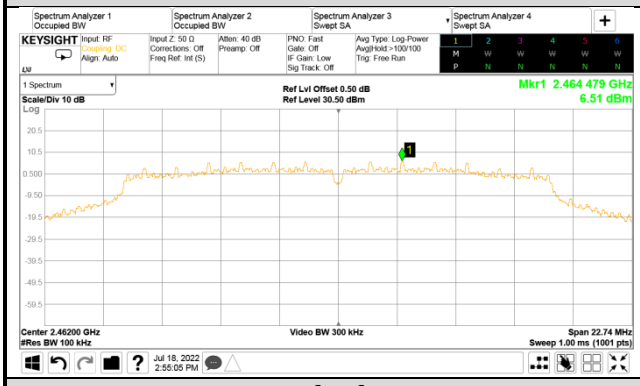
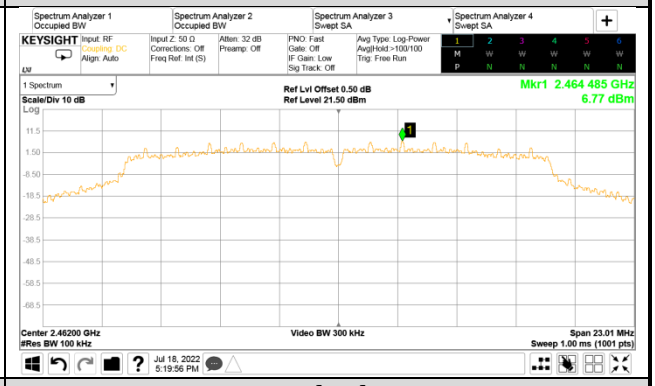
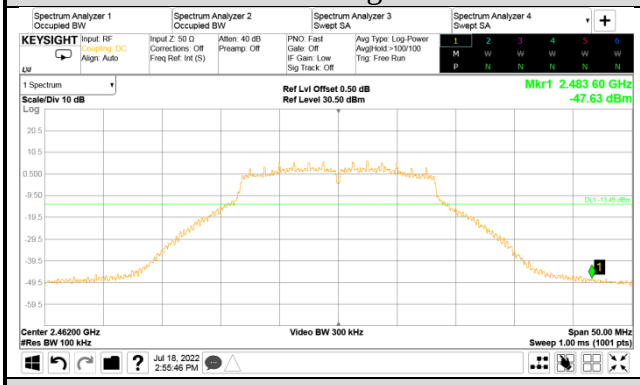
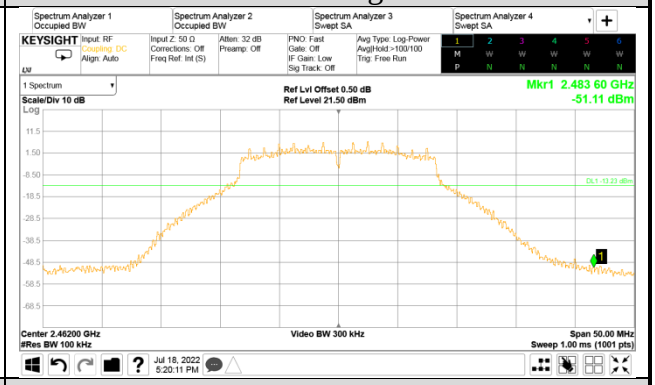
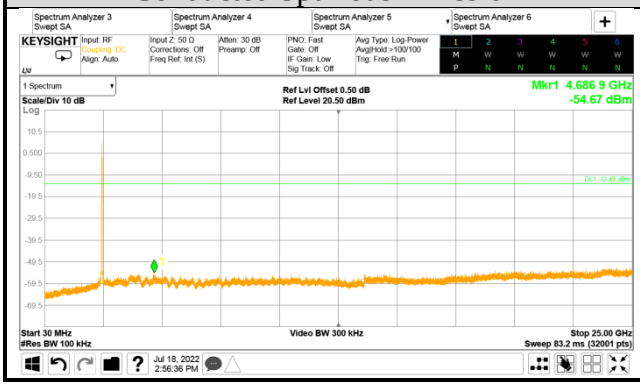
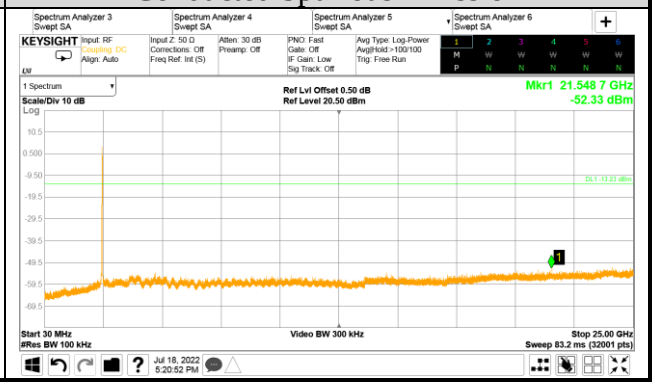
802.11g	
TX 2462MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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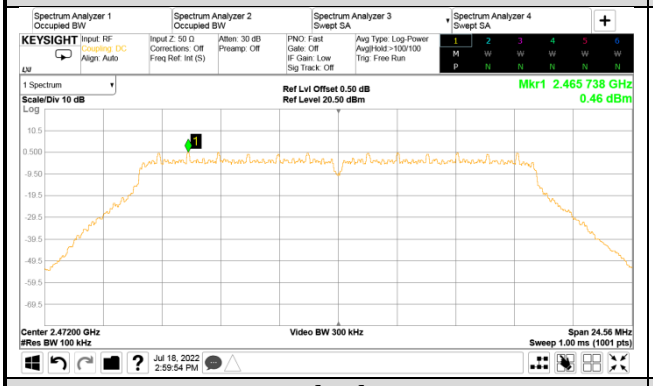
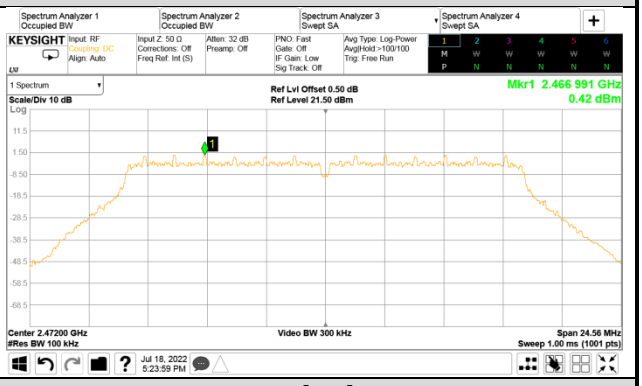
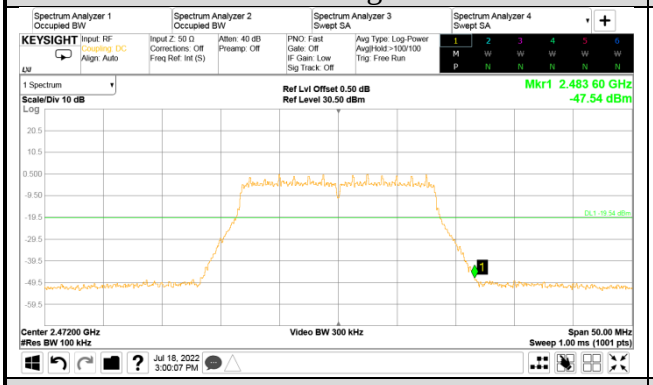
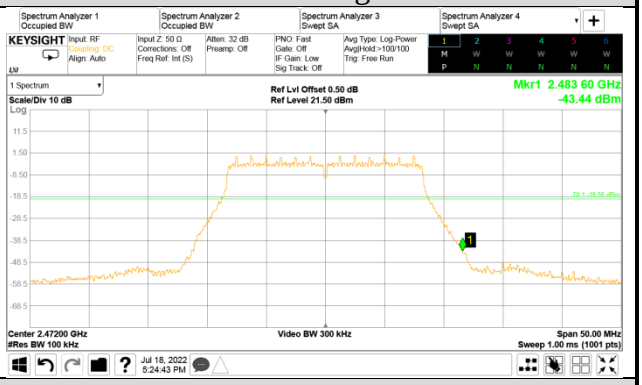
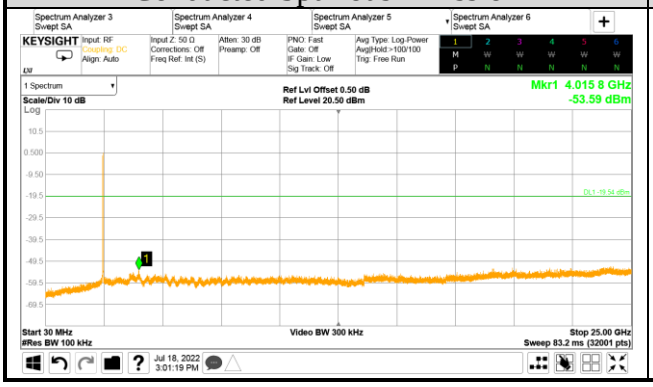
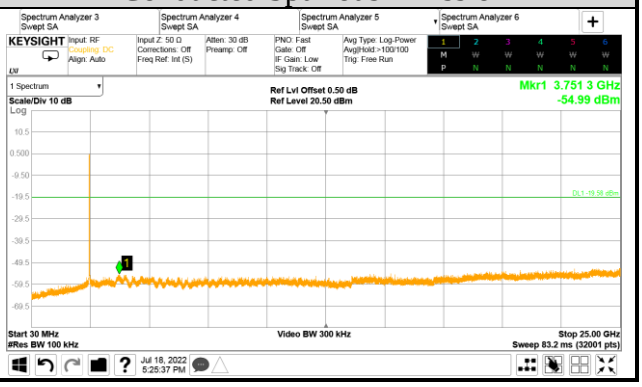
802.11g	
TX 2472MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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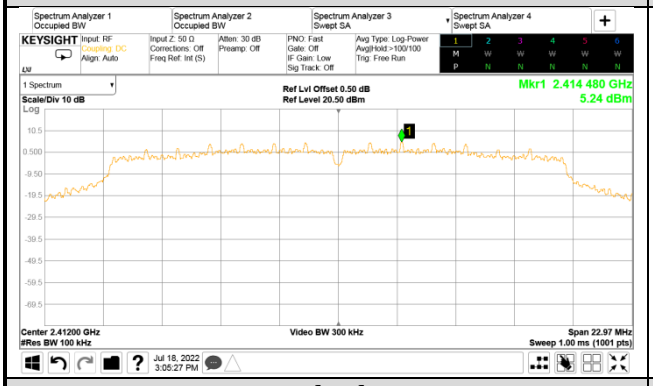
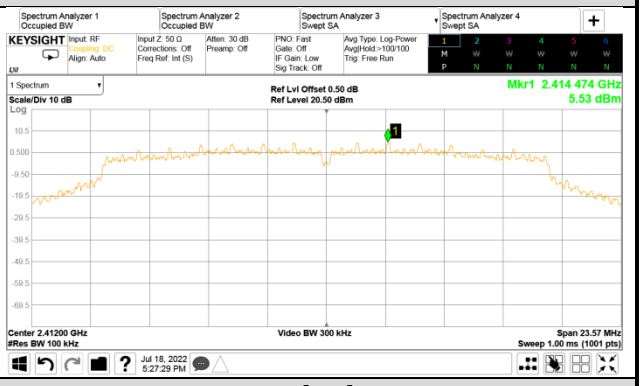
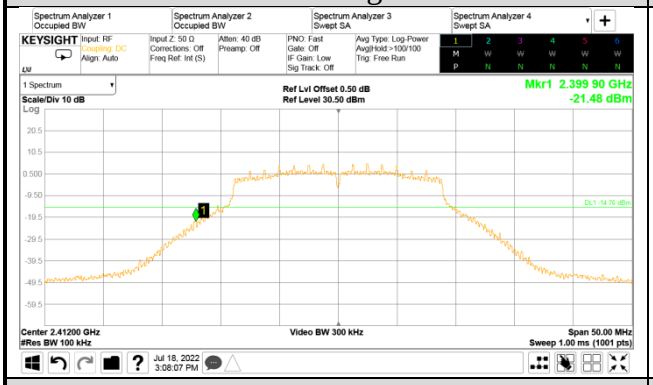
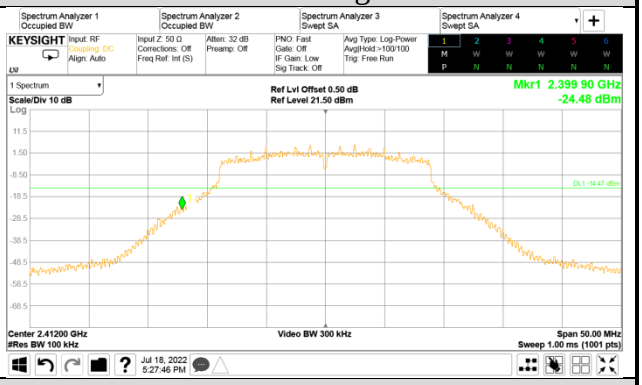
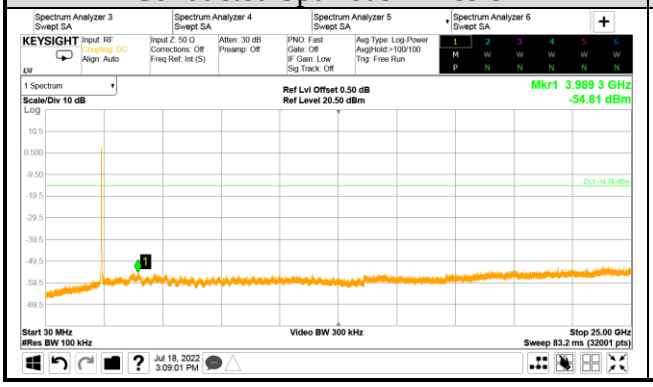
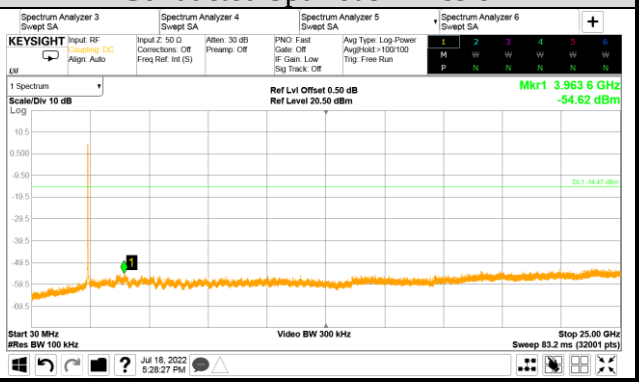
802.11n-HT20	
TX 2412MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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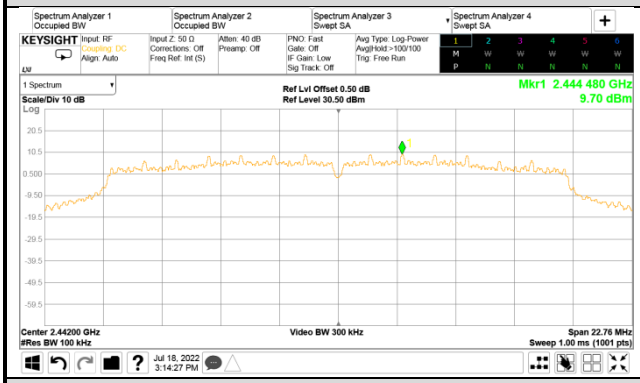
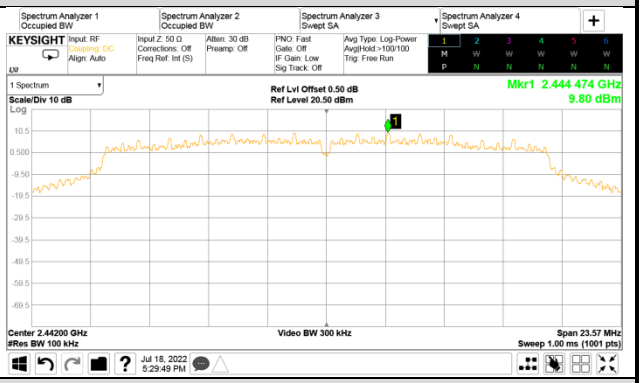
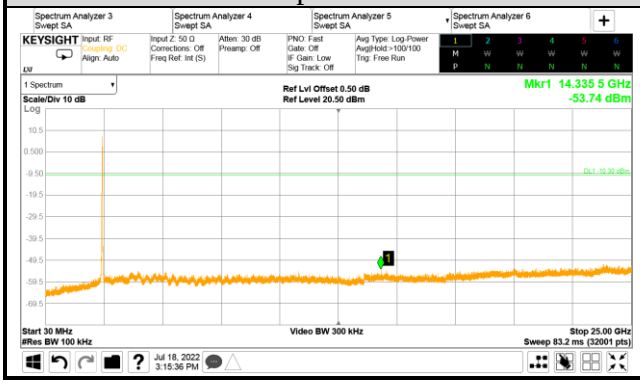
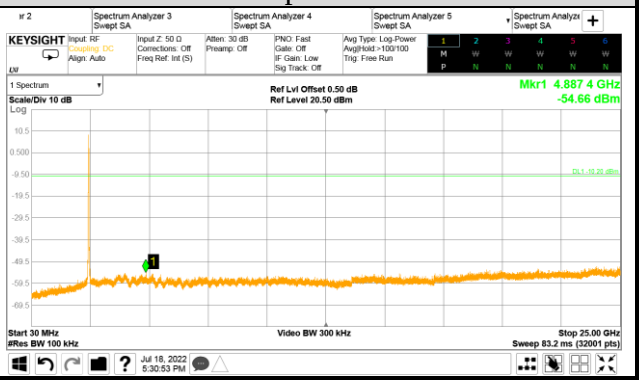
802.11n-HT20	
TX 2442MHz	
AUX	Main
Reference Level	Reference Level
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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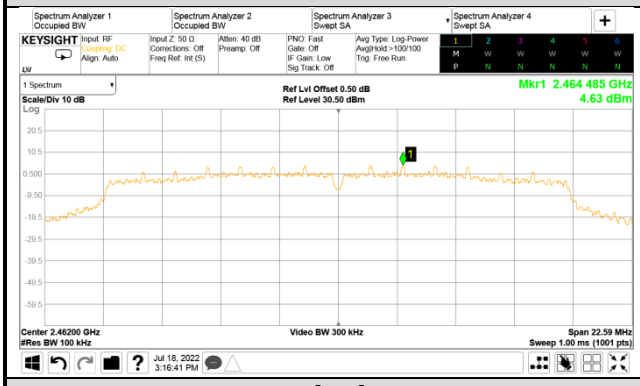
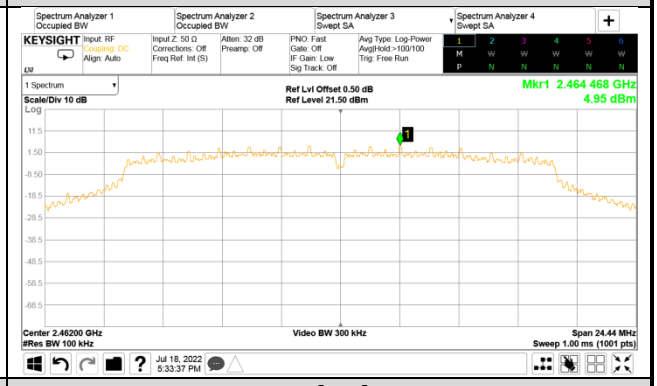
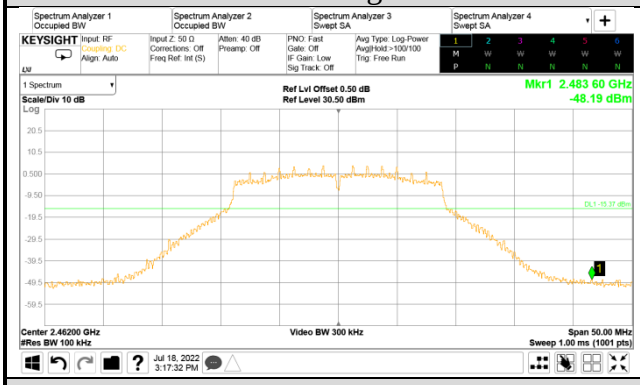
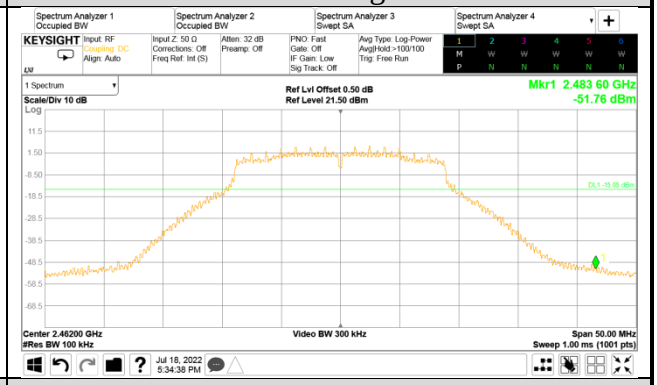
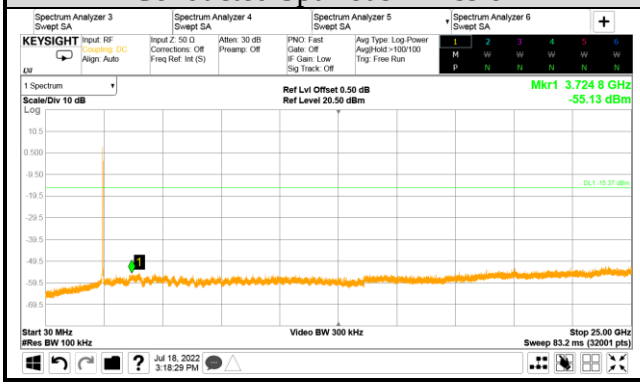
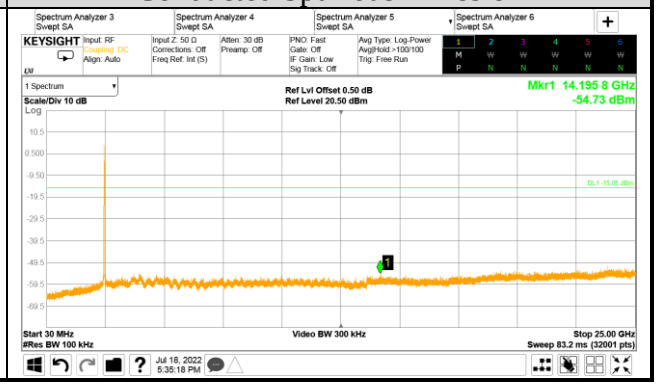
802.11n-HT20	
TX 2462MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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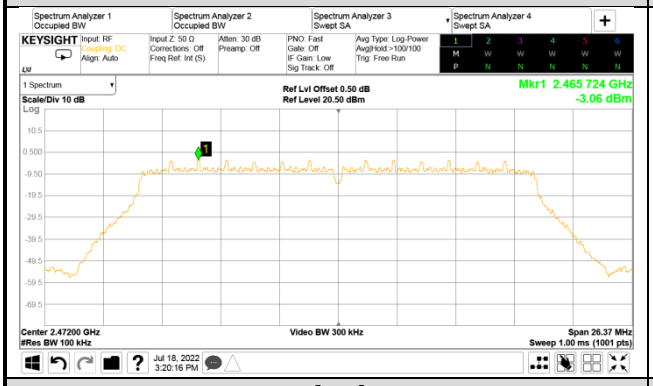
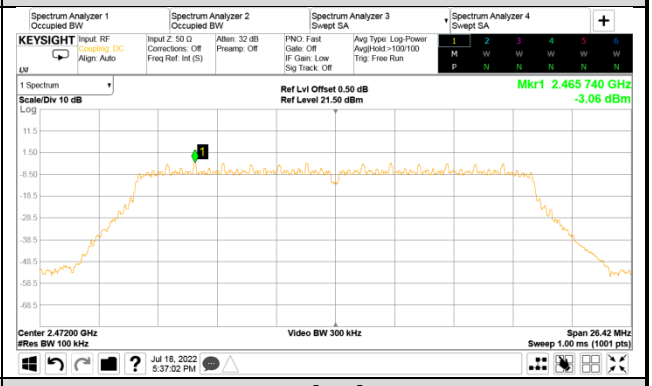
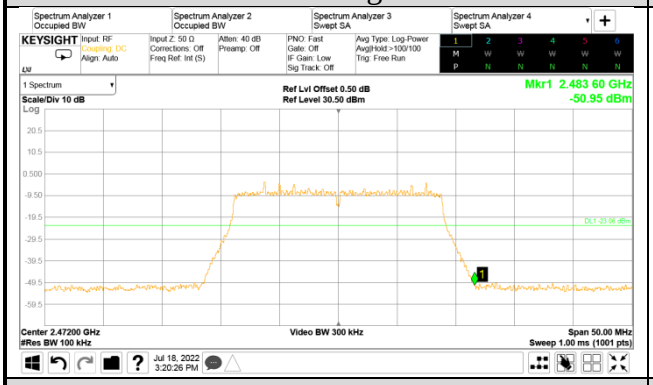
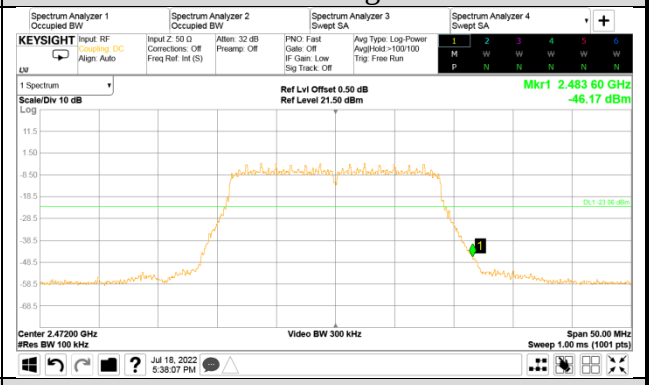
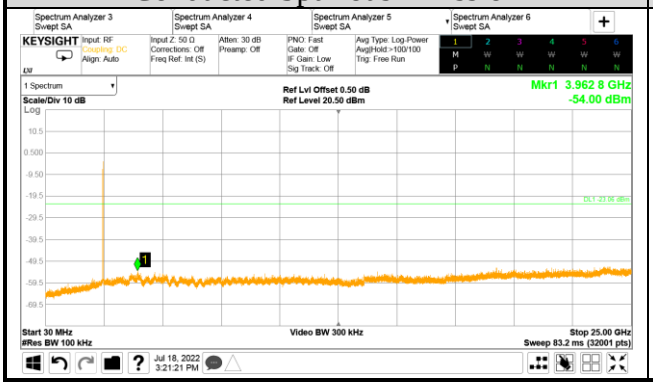
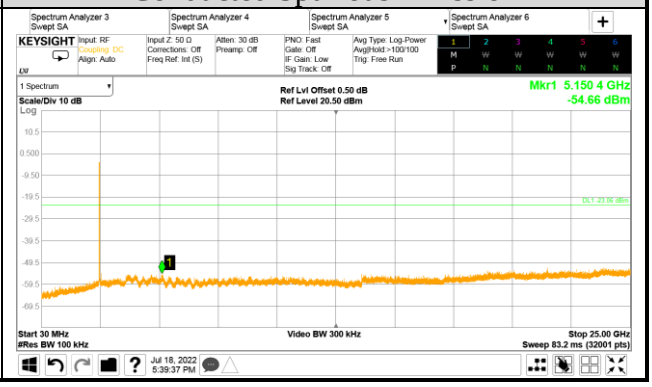
802.11n-HT20	
TX 2472MHz	
AUX	Main
Reference Level	Reference Level
	
Band Edge	Band Edge
	
Conducted Spurious Emission	Conducted Spurious Emission
	

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