

A.4. POWER SPECTRAL DENSITY

Test Date	2024/10/27~30	Temp./Hum.	23~24°C/56~61%
Cable Loss	1.00 dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.4.1. Power Spectral Density Result

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Max. Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11a	2A	5260	6.534	6.100	N/A	6.534	11 dBm/MHz
		5300	6.401	5.900		6.401	
		5320	6.348	5.952		6.348	
	2C	5500	6.466	5.969		6.466	
		5580	6.453	5.907		6.453	
		5700	6.419	6.312		6.419	
		5720	6.391	6.240		6.391	

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

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

3. Max. Power Spectral Density (dBm/1MHz) = Max of each PSD (dBm/1MHz) + Duty Cycle Factor(dB) when duty cycle is less than 98%.

4. Max. Power Spectral Density (dBm/500kHz) = Max of each PSD (dBm/500kHz) + Duty Cycle Factor(dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11n-HT20	2A	5260	5.757	5.406	N/A	8.595	11 dBm/MHz
		5300	5.600	5.226		8.427	
		5320	5.489	5.339		8.425	
	2C	5500	5.750	5.365		8.572	
		5580	5.732	5.213		8.491	
		5700	5.664	5.591		8.638	
		5720	6.197	5.922		9.072	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11n-HT40	2A	5270	2.645	2.314	N/A	5.493	11 dBm/MHz
		5310	1.635	1.670		4.663	
	2C	5510	3.023	3.103		6.073	
		5550	2.463	2.464		5.474	
		5670	2.802	3.083		5.955	
		5710	2.750	3.024		5.899	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ac-VHT80	2A	5290	-0.148	-0.774	N/A	2.561	11 dBm/MHz
	2C	5530	0.631	0.438		3.546	
		5610	0.126	-0.105		3.022	
		5690	0.296	0.073		3.196	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ac-VHT160	2A	5250	-5.025	-5.637	N/A	-2.310	11 dBm/MHz
	2C	5570	-4.034	-4.686		-1.337	

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

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ax-HE20	2A	5260	5.483	5.163	N/A	8.336	11 dBm/MHz
		5300	5.303	4.987		8.158	
		5320	5.233	4.989		8.123	
	2C	5500	5.452	5.224		8.350	
		5580	5.468	4.979		8.241	
		5700	5.402	5.336		8.379	
		5720	5.864	5.751		8.818	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ax-HE40	2A	5270	2.374	2.325	N/A	5.360	11 dBm/MHz
		5310	1.952	1.949		4.961	
	2C	5510	3.286	3.301		6.304	
		5550	2.568	2.626		5.607	
		5670	3.187	3.005		6.107	
		5710	2.941	3.027		5.995	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ax-HE80	2A	5290	-0.349	-1.126	N/A	2.290	11 dBm/MHz
	2C	5530	0.203	0.068		3.146	
		5610	-0.034	-0.400		2.797	
		5690	0.026	-0.155		2.947	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11ax-HE160	2A	5250	-5.394	-5.188	N/A	-2.279	11 dBm/MHz
	2C	5570	-4.578	-4.397		-1.476	

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

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11be-EHT20	2A	5260	5.393	5.145	N/A	8.281	11 dBm/MHz
		5300	5.198	5.016		8.118	
		5320	5.066	4.985		8.036	
	2C	5500	5.251	5.116		8.194	
		5580	5.188	5.020		8.115	
		5700	5.217	5.233		8.235	
		5720	5.724	5.718		8.731	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11be-EHT40	2A	5270	2.730	2.838	N/A	5.795	11 dBm/MHz
		5310	2.117	1.844		4.993	
	2C	5510	3.668	3.761		6.725	
		5550	2.930	3.188		6.071	
		5670	3.237	3.275		6.266	
		5710	3.103	3.176		6.150	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11be-EHT80	2A	5290	-0.659	-1.193	N/A	2.093	11 dBm/MHz
	2C	5530	0.333	0.047		3.203	
		5610	-0.131	-0.588		2.657	
		5690	-0.250	-0.065		2.854	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) Note 3	Limit
			AUX	Main			
802.11be-EHT160	2A	5250	-5.355	-5.445	N/A	-2.389	11 dBm/MHz
	2C	5570	-4.067	-4.699		-1.361	

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

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE20	2A	5320	26/8	5.936	5.649	0.155	8.960	11 dBm/MHz
			52/40	6.354	5.830	0.155	9.265	
			106/54	6.444	6.059	0.155	9.421	
	2C	5500	26/0	6.732	6.159	0.155	9.620	
			52/37	6.958	6.544	0.155	9.921	
			106/53	6.954	6.716	0.155	10.002	
		5700	26/8	6.146	5.909	0.155	9.194	
			52/40	6.326	6.105	0.155	9.382	
			106/54	6.327	6.208	0.155	9.433	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE40	2A	5310	242/62	4.726	4.231	0.141	7.637	11 dBm/MHz
	2C	5510	242/61	5.915	5.723	0.141	8.971	
		5670	242/62	5.737	5.741	0.141	8.890	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE80	2A	5290	484/66	1.956	1.440	0.150	4.866	11 dBm/MHz
	2C	5530	484/65	3.591	2.966	0.150	6.450	
		5610	484/66	2.900	2.699	0.150	5.961	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE160	2A	5250	996/67	-2.028	-2.352	0.150	0.973	11 dBm/MHz
		5250	996/S67	-2.185	-3.140	0.150	0.524	
	2C	5570	996/67	-0.152	-0.450	0.150	2.862	
		5570	996/S67	-0.690	-0.857	0.150	2.388	

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

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11be-EHT20	2A	5320	26/8	5.692	5.604	0.155	8.814	11 dBm/MHz
			52/40	5.923	6.318	0.155	9.290	
			106/54	6.512	6.037	0.155	9.446	
	2C	5500	26/0	6.635	6.223	0.155	9.599	
			52/37	6.848	6.472	0.155	9.829	
			106/53	6.726	6.356	0.155	9.710	
		5700	26/8	5.731	5.624	0.155	8.843	
			52/40	6.150	5.892	0.155	9.188	
			106/54	6.364	6.116	0.155	9.407	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11be-EHT40	2A	5310	242/62	4.560	4.287	0.150	7.586	11 dBm/MHz
	2C	5510	242/61	6.014	5.858	0.150	9.097	
		5670	242/62	5.665	5.605	0.150	8.795	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11be-EHT80	2A	5290	484/66	1.761	1.913	0.155	5.003	11 dBm/MHz
	2C	5530	484/65	3.531	3.025	0.155	6.451	
		5610	484/66	3.073	3.119	0.155	6.261	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11be-EHT160	2A	5250	996/67	0.180	-1.962	0.155	2.405	11 dBm/MHz
		5250	996/S67	-2.590	-2.904	0.155	0.421	
	2C	5570	996/67	-0.253	-0.368	0.155	2.855	
		5570	996/S67	-0.630	-0.726	0.155	2.488	

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

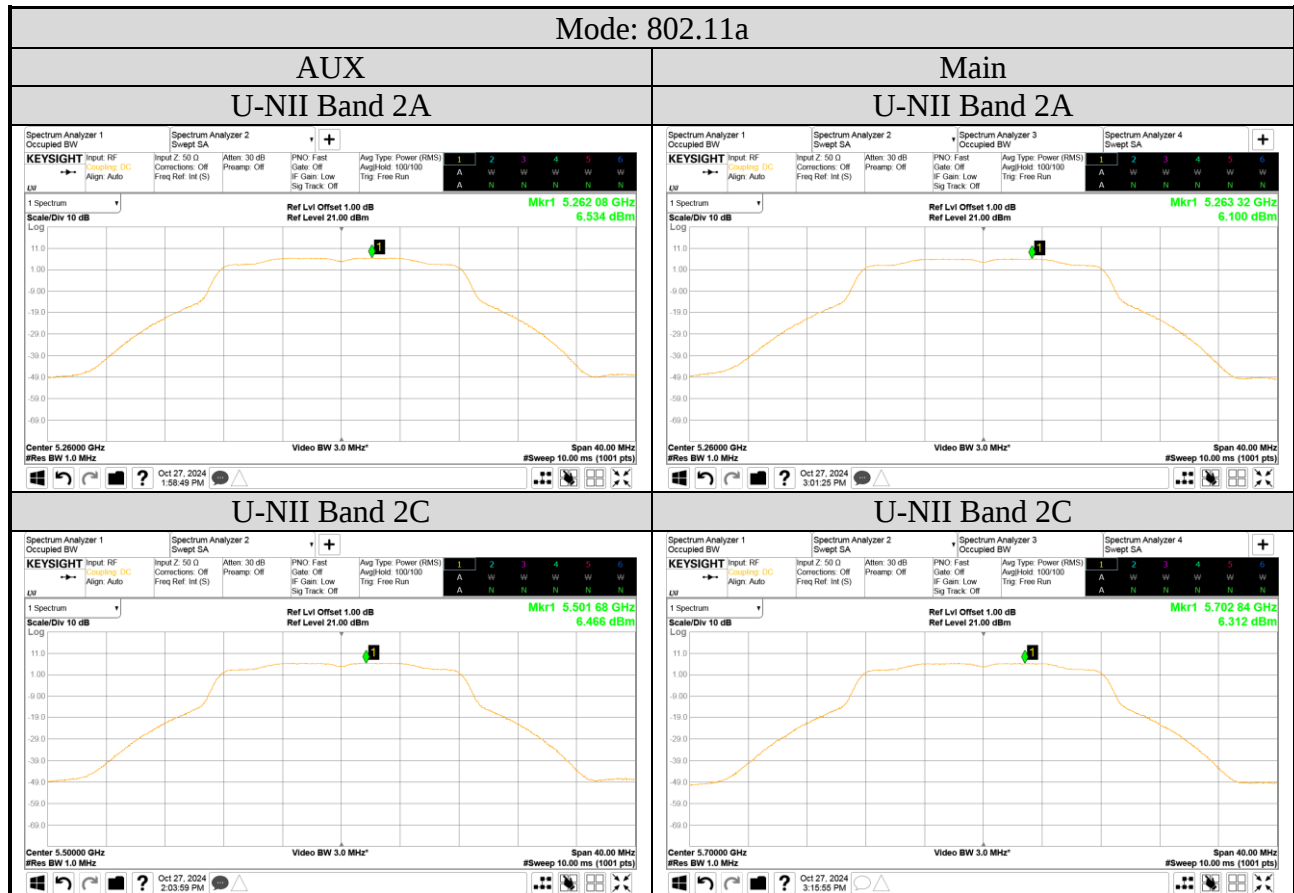
2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1dB+7dB=8dB

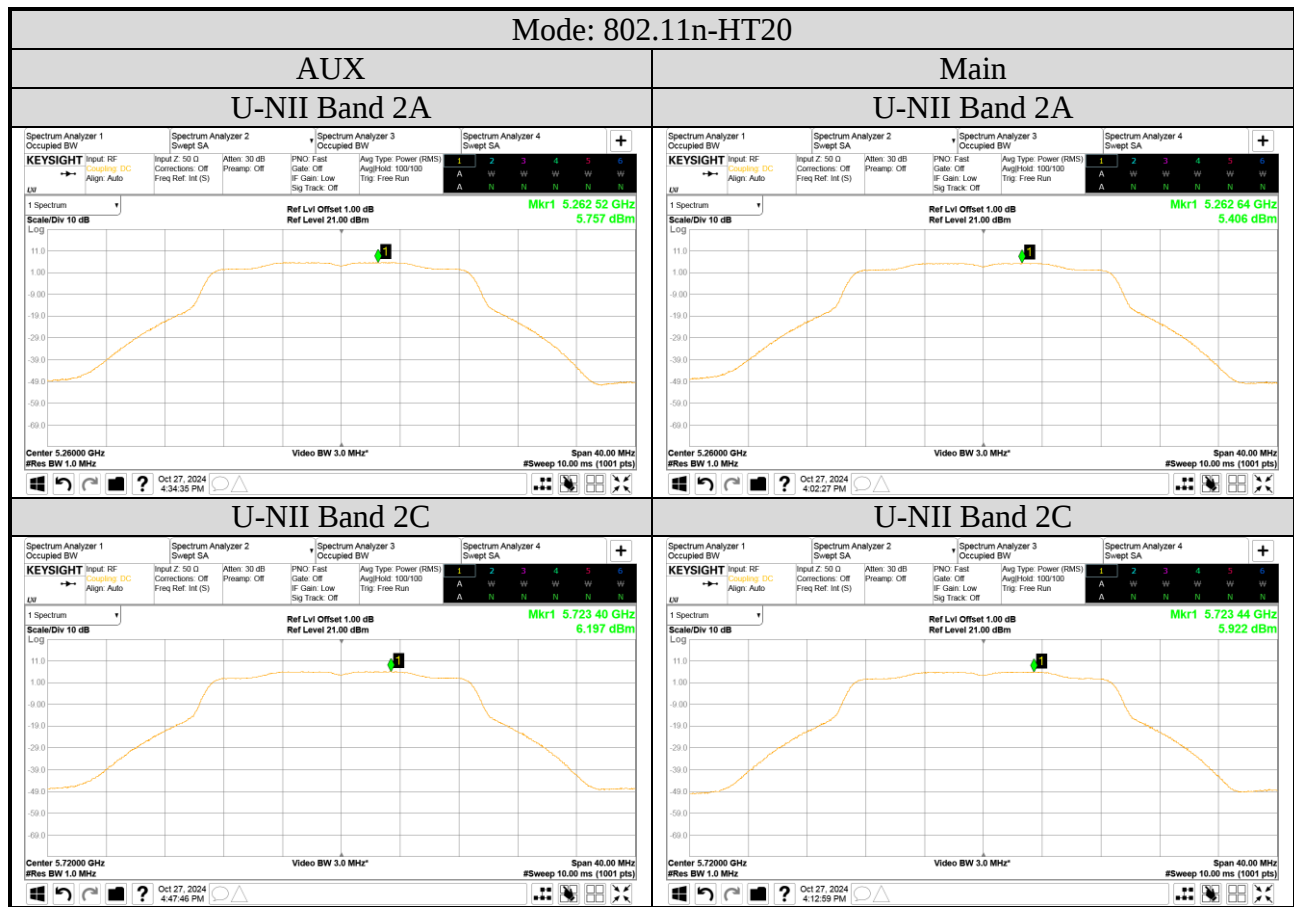
3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

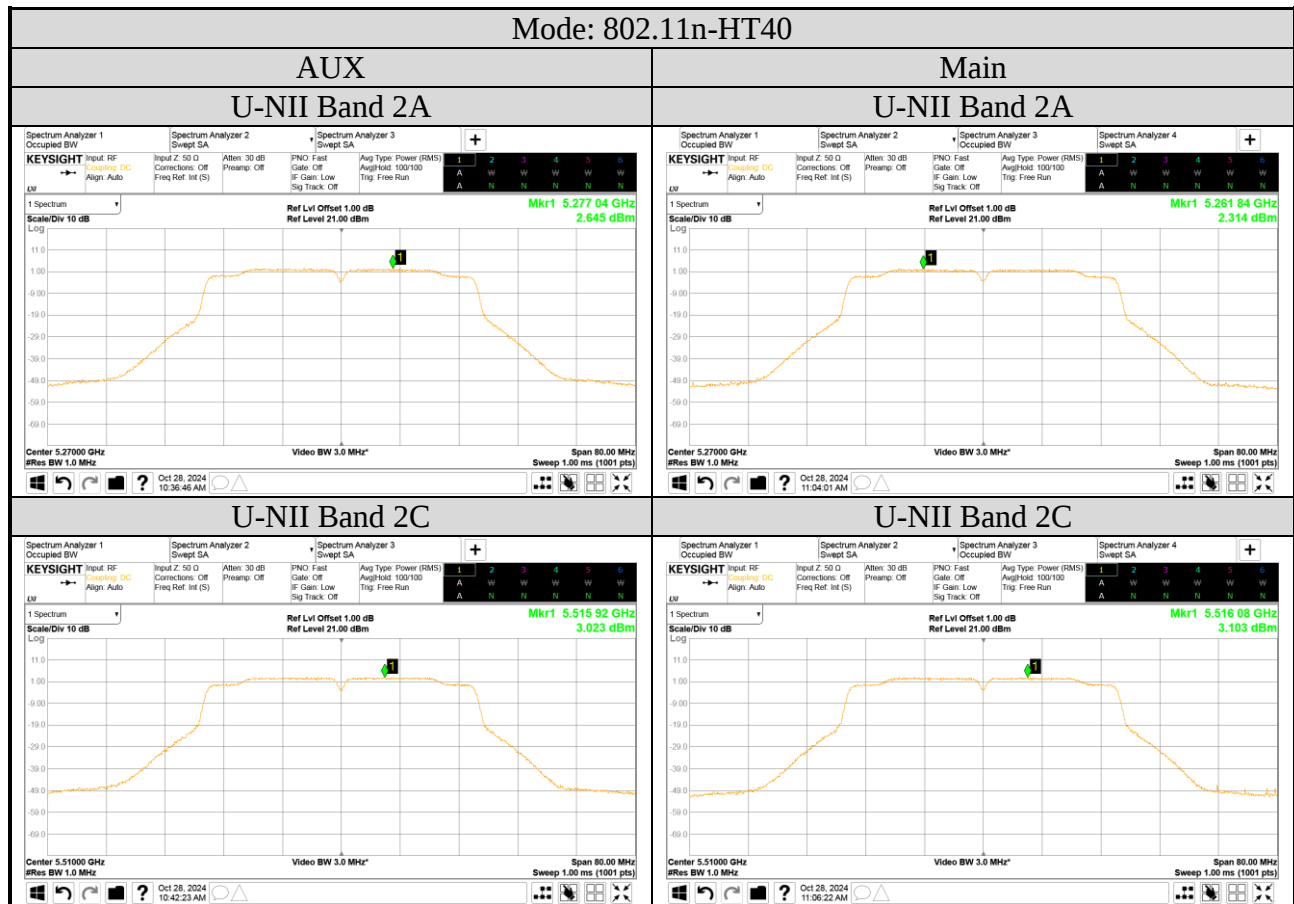
A.4.2. Measurement Plots



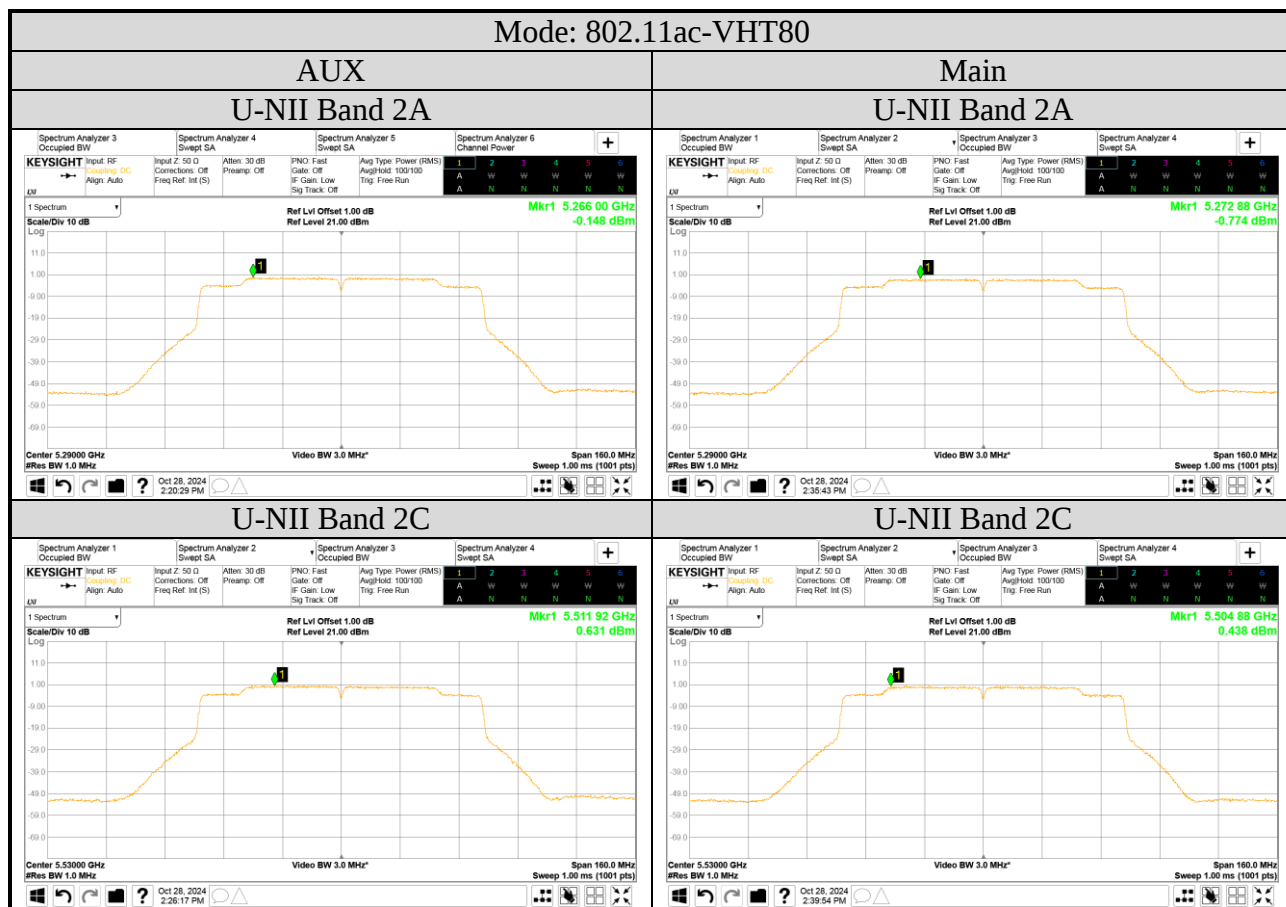
Note: We only presented max result (worst case) plots for each test mode



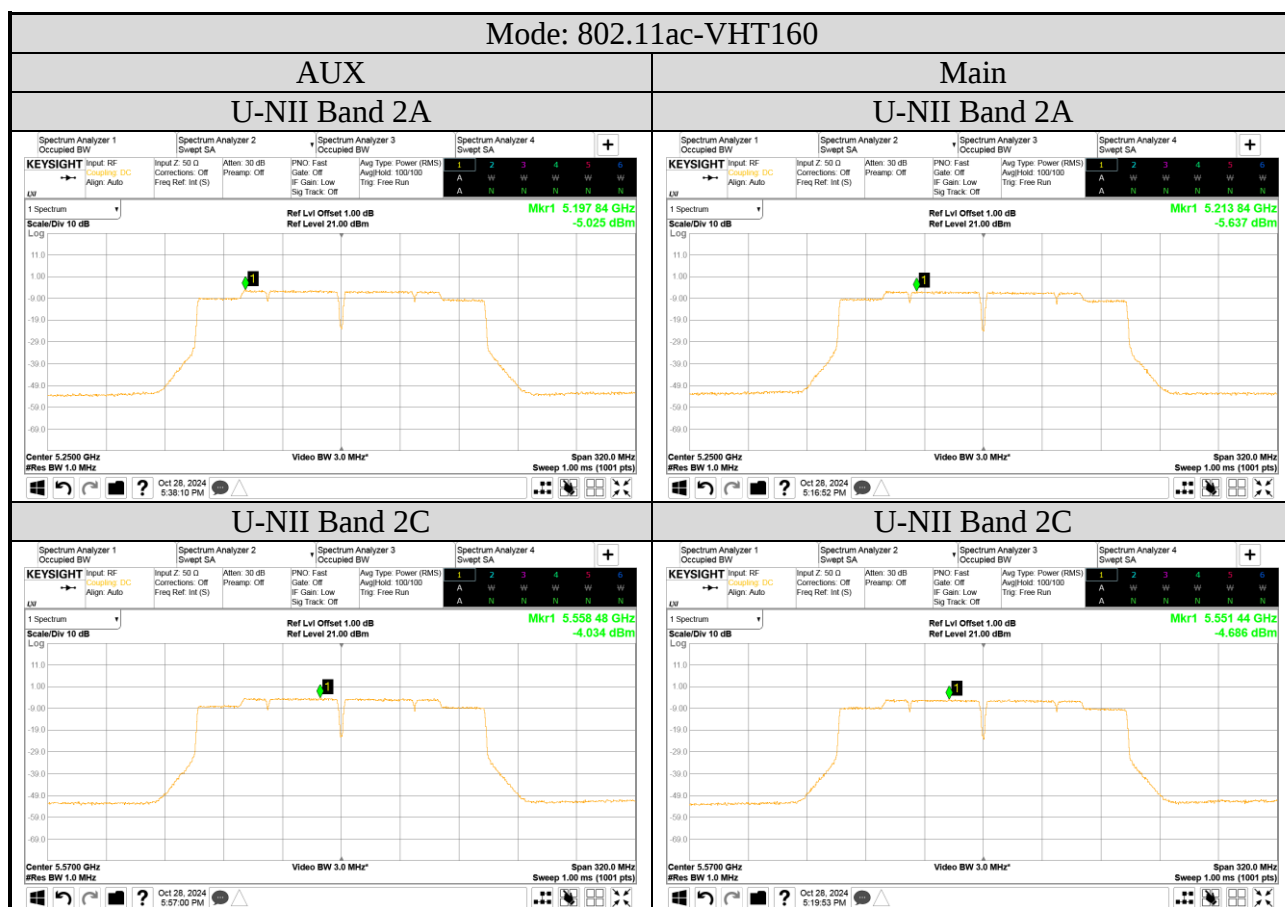
Note: We only presented max result (worst case) plots for each test mode



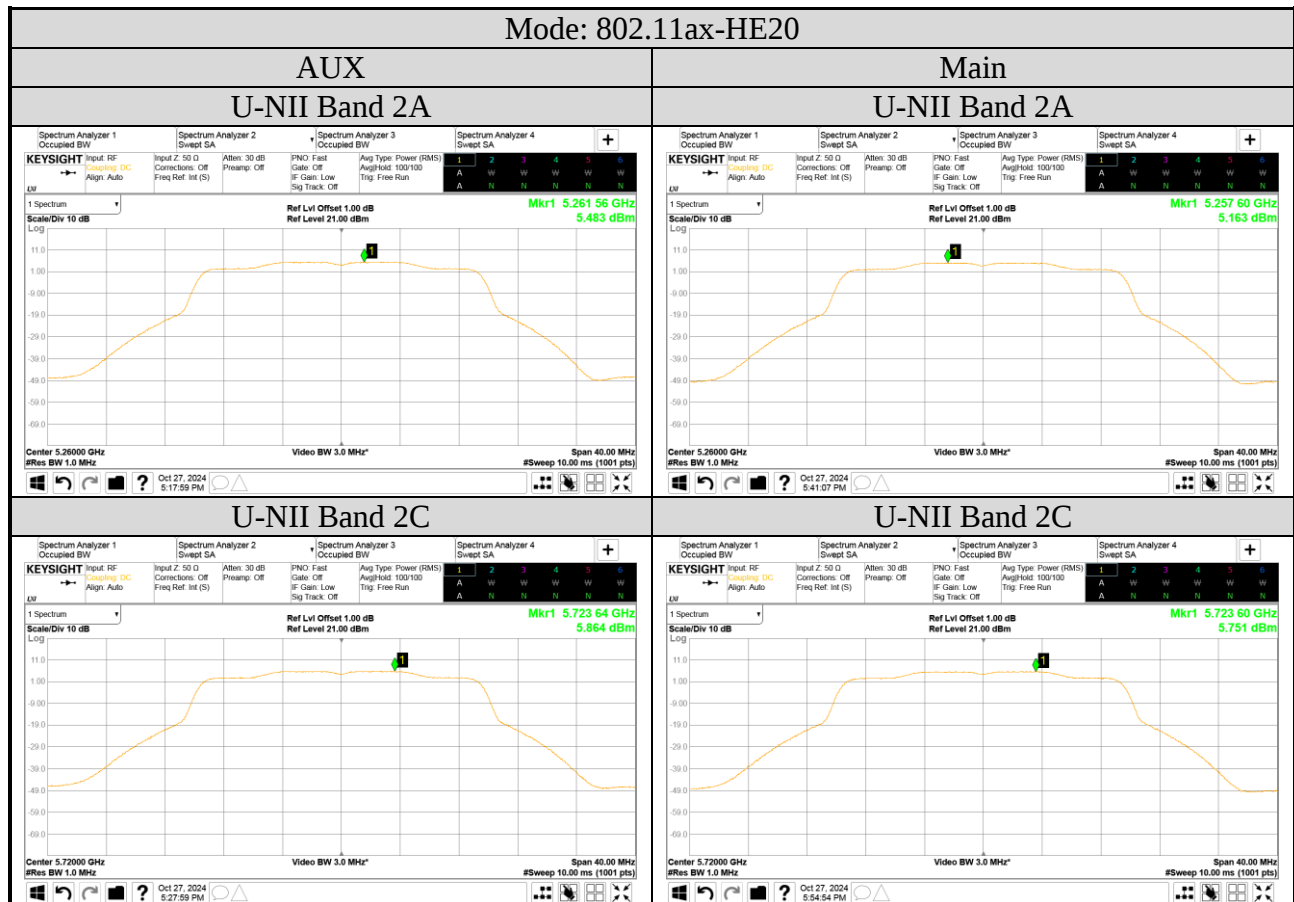
Note: We only presented max result (worst case) plots for each test mode



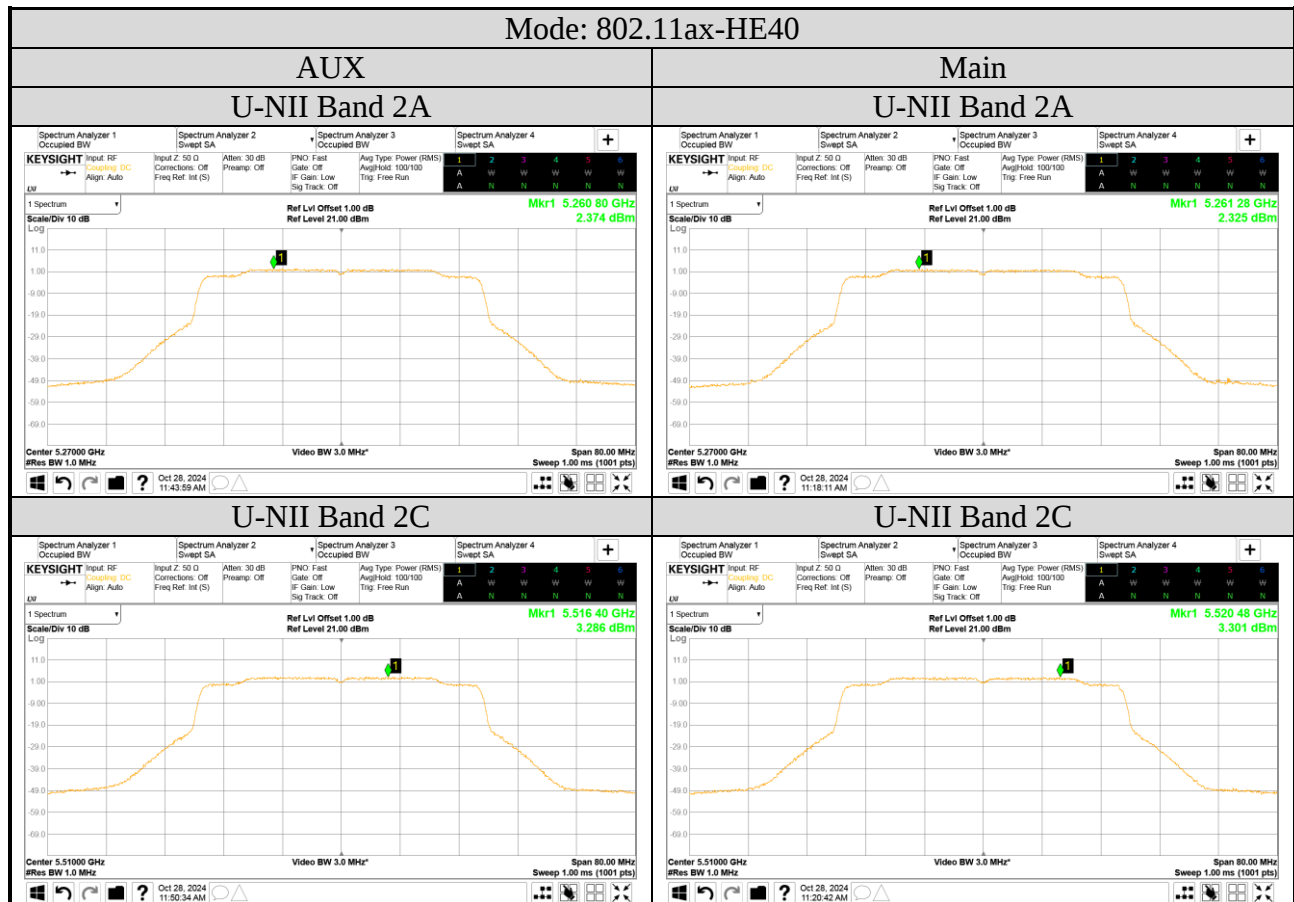
Note: We only presented max result (worst case) plots for each test mode



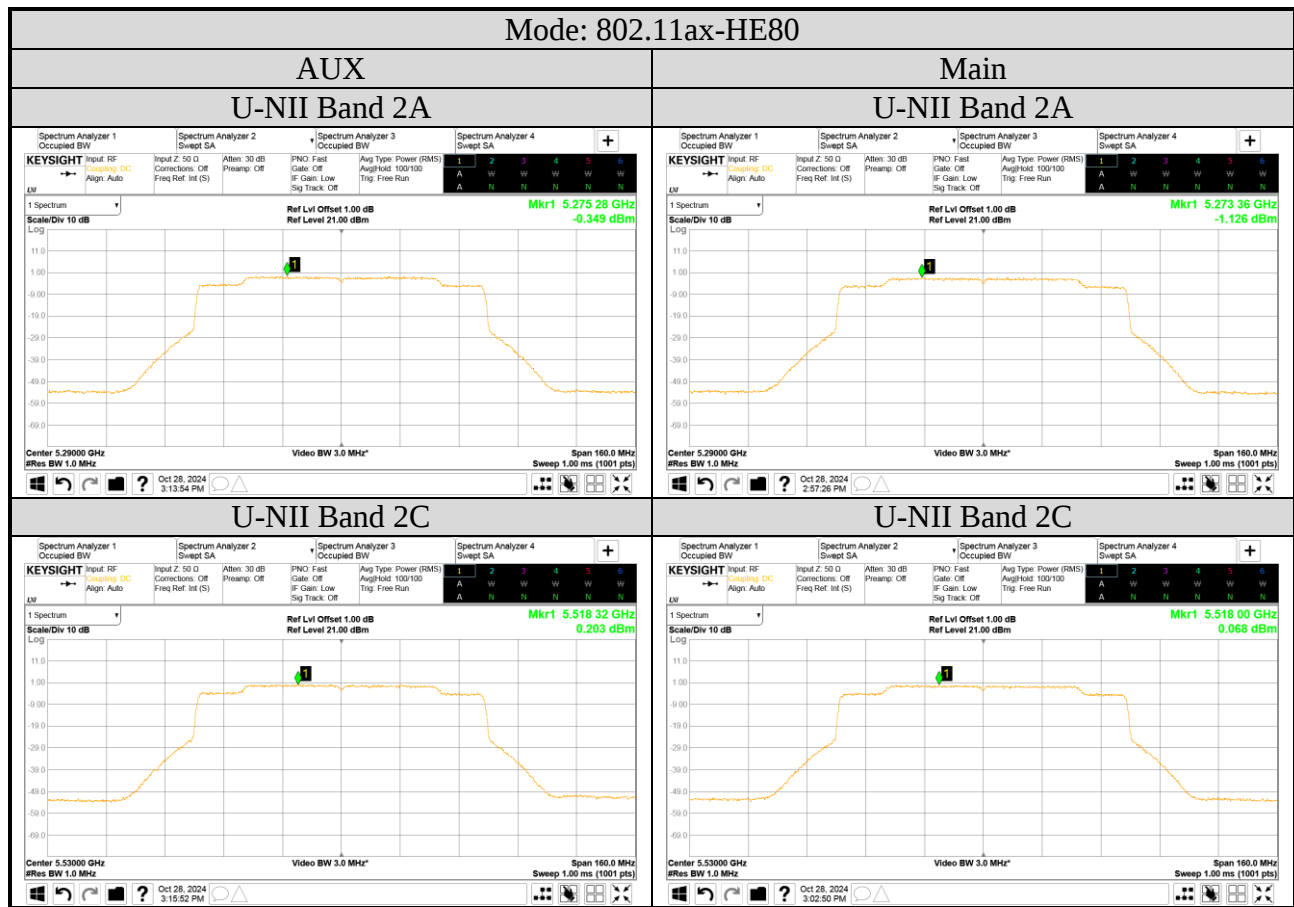
Note: We only presented max result (worst case) plots for each test mode



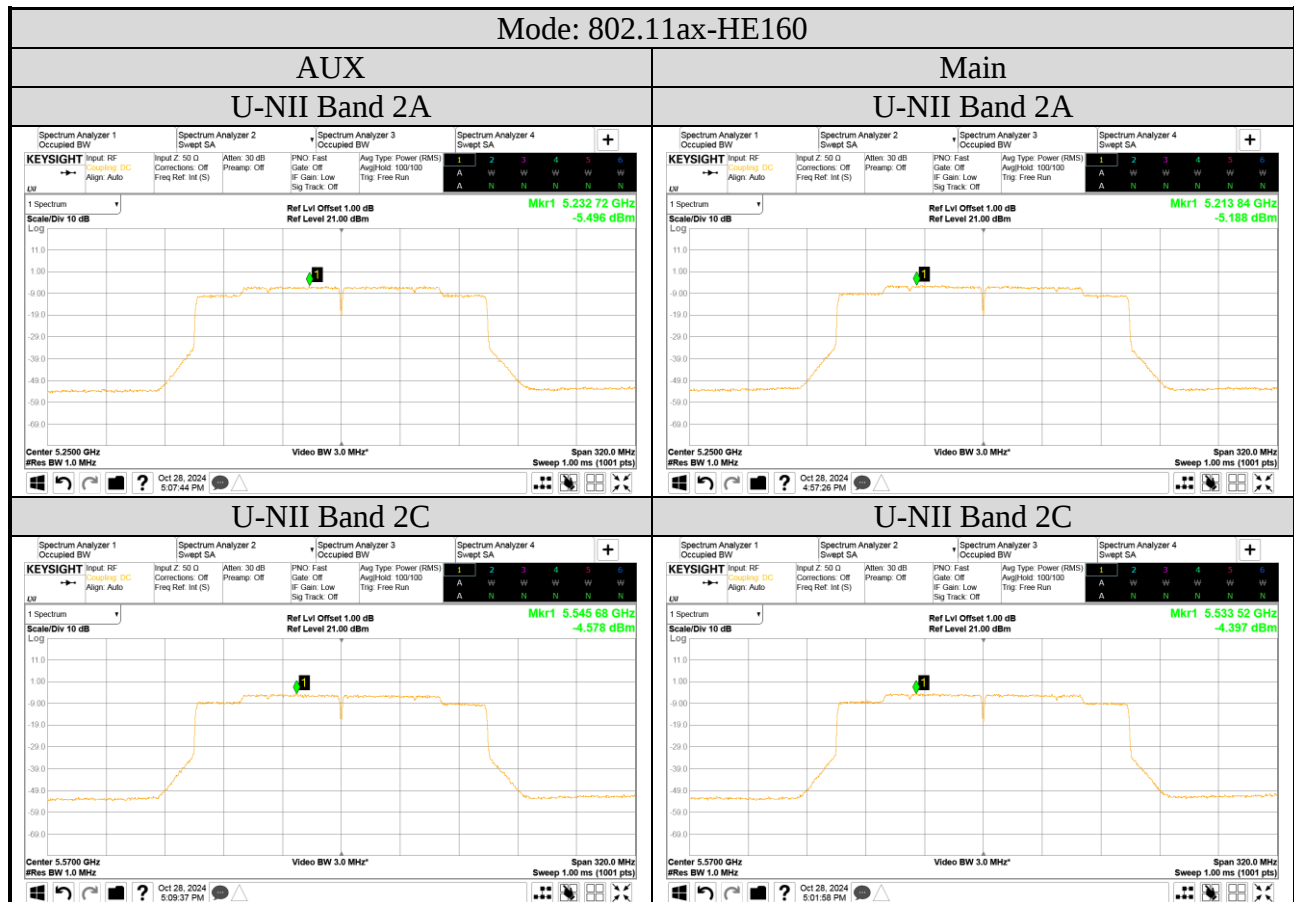
Note: We only presented max result (worst case) plots for each test mode



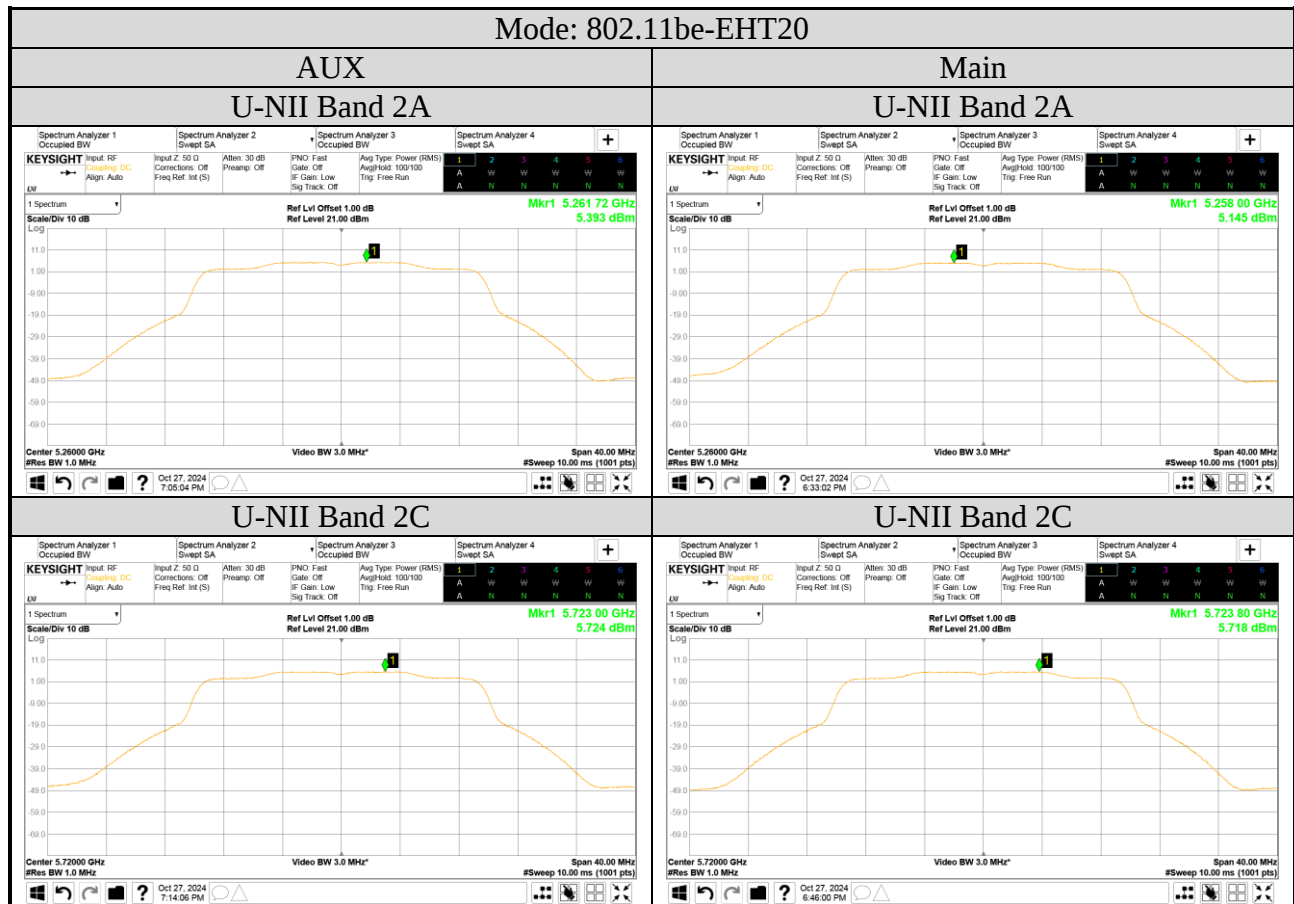
Note: We only presented max result (worst case) plots for each test mode



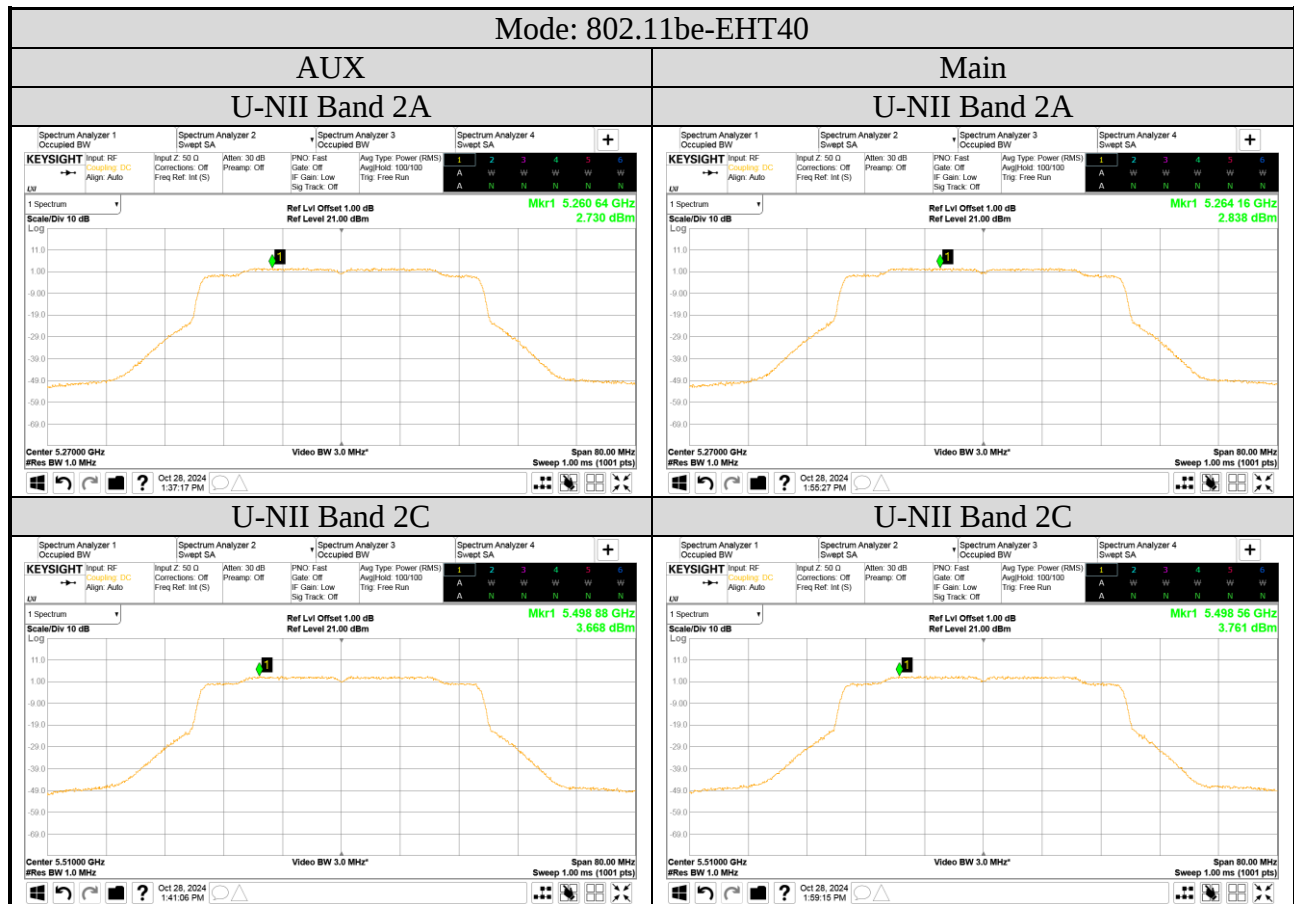
Note: We only presented max result (worst case) plots for each test mode



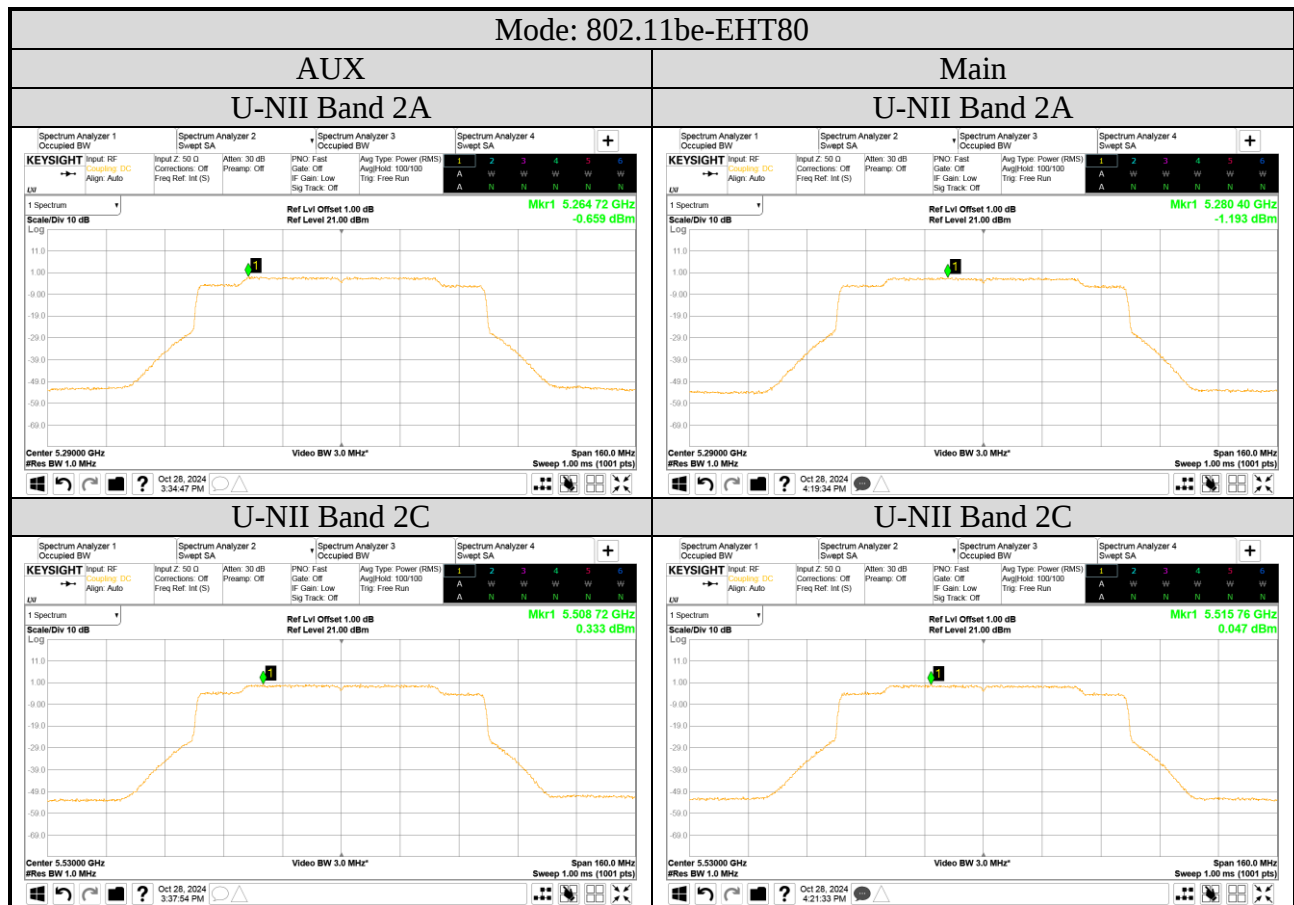
Note: We only presented max result (worst case) plots for each test mode



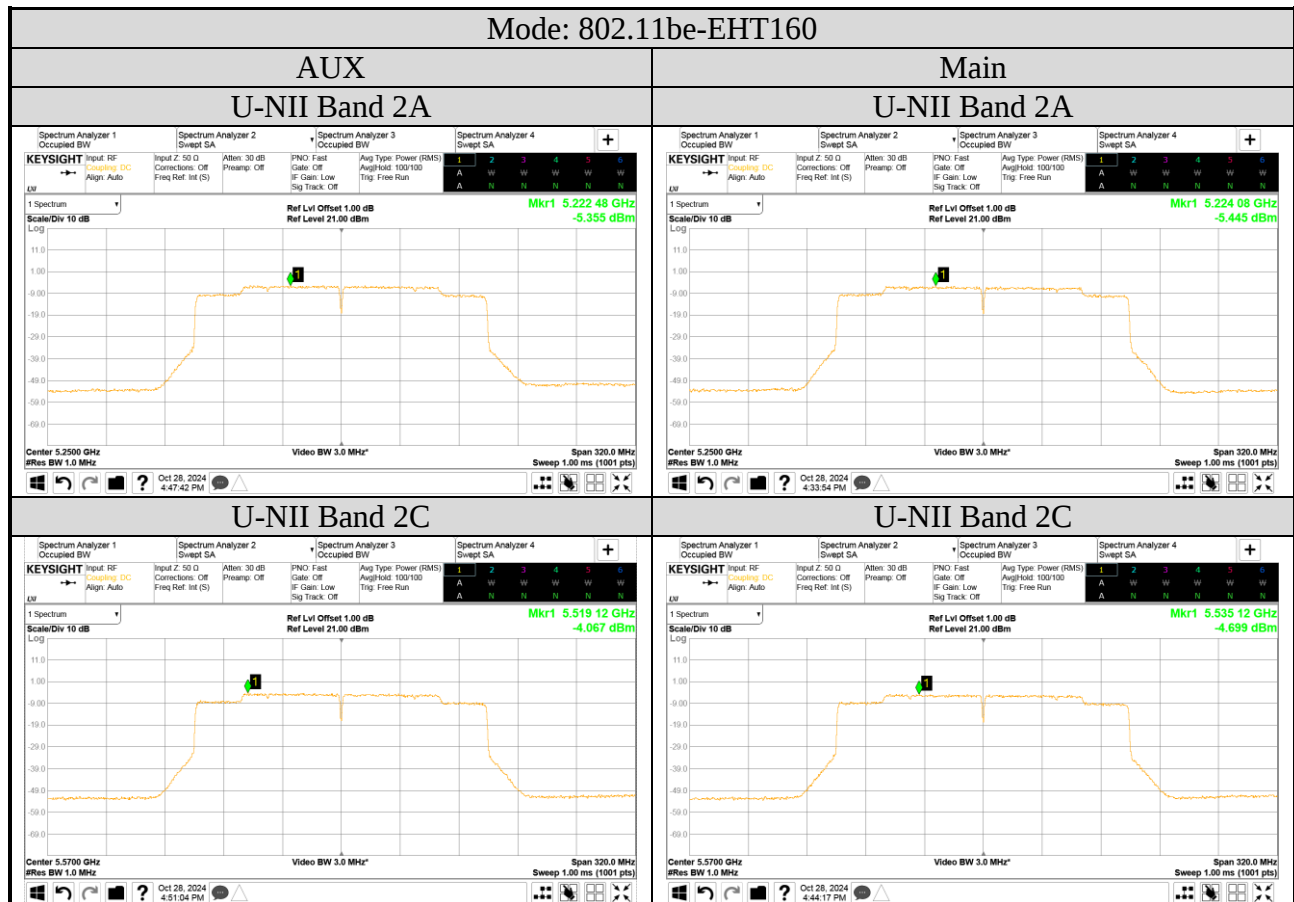
Note: We only presented max result (worst case) plots for each test mode



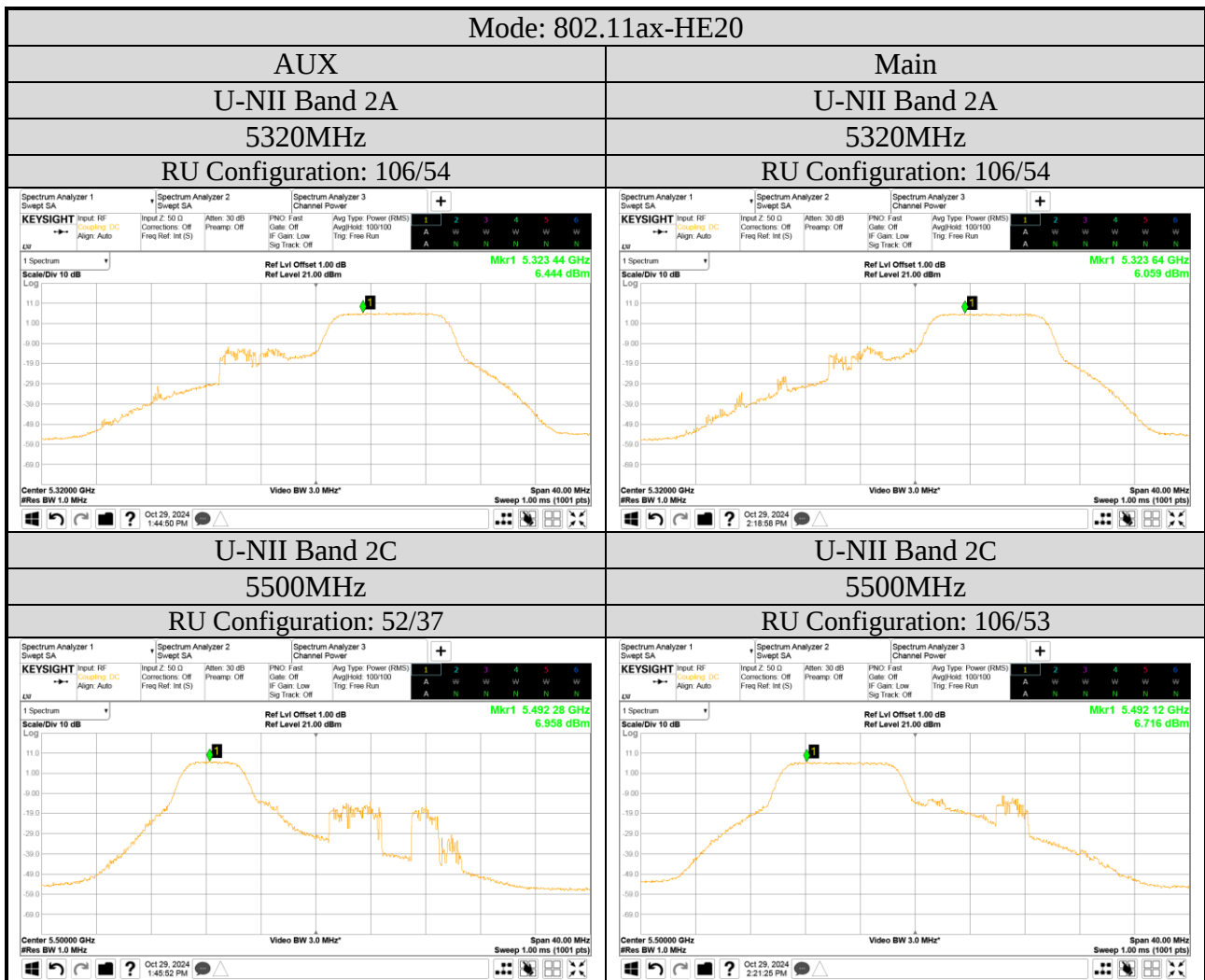
Note: We only presented max result (worst case) plots for each test mode



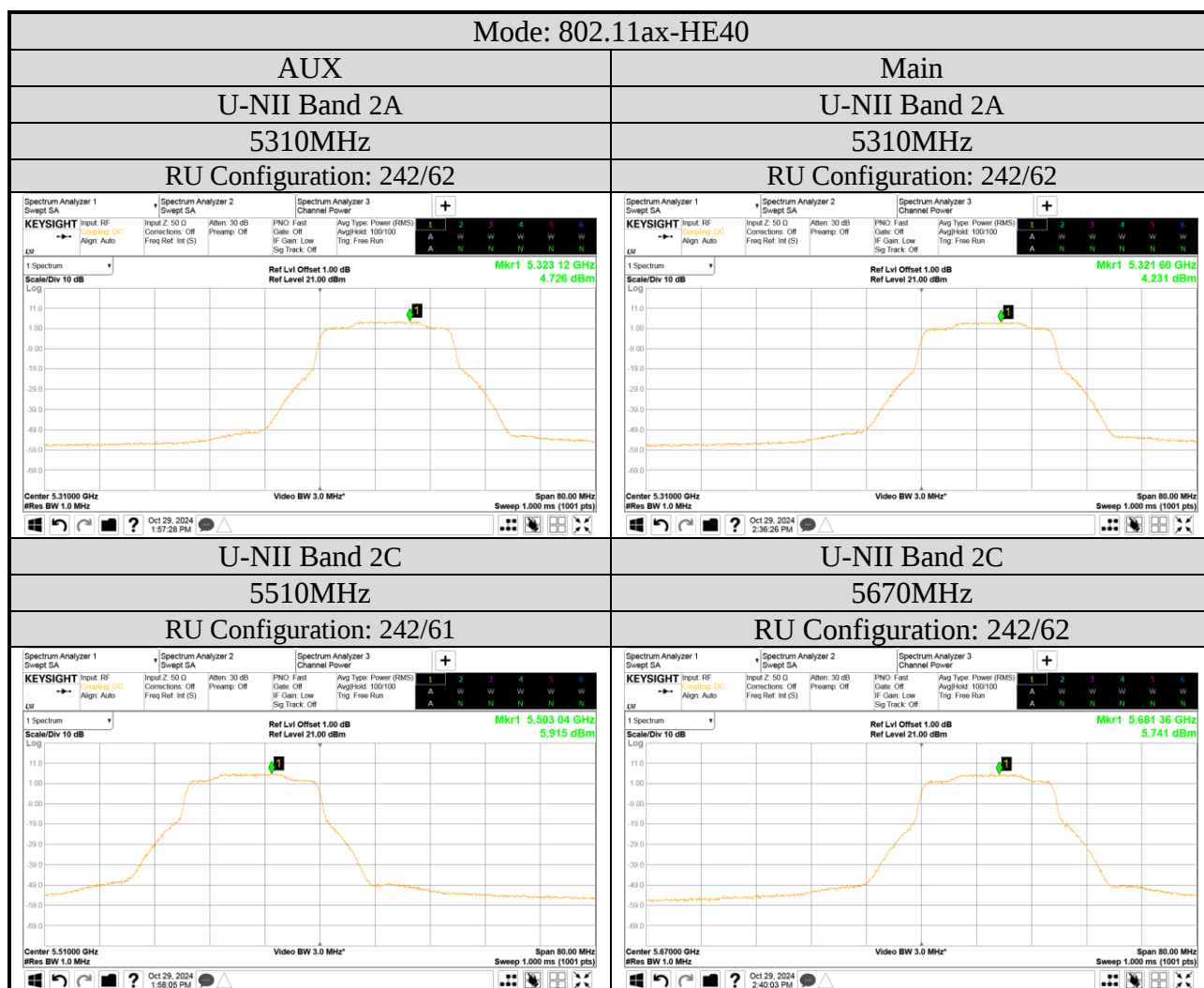
Note: We only presented max result (worst case) plots for each test mode



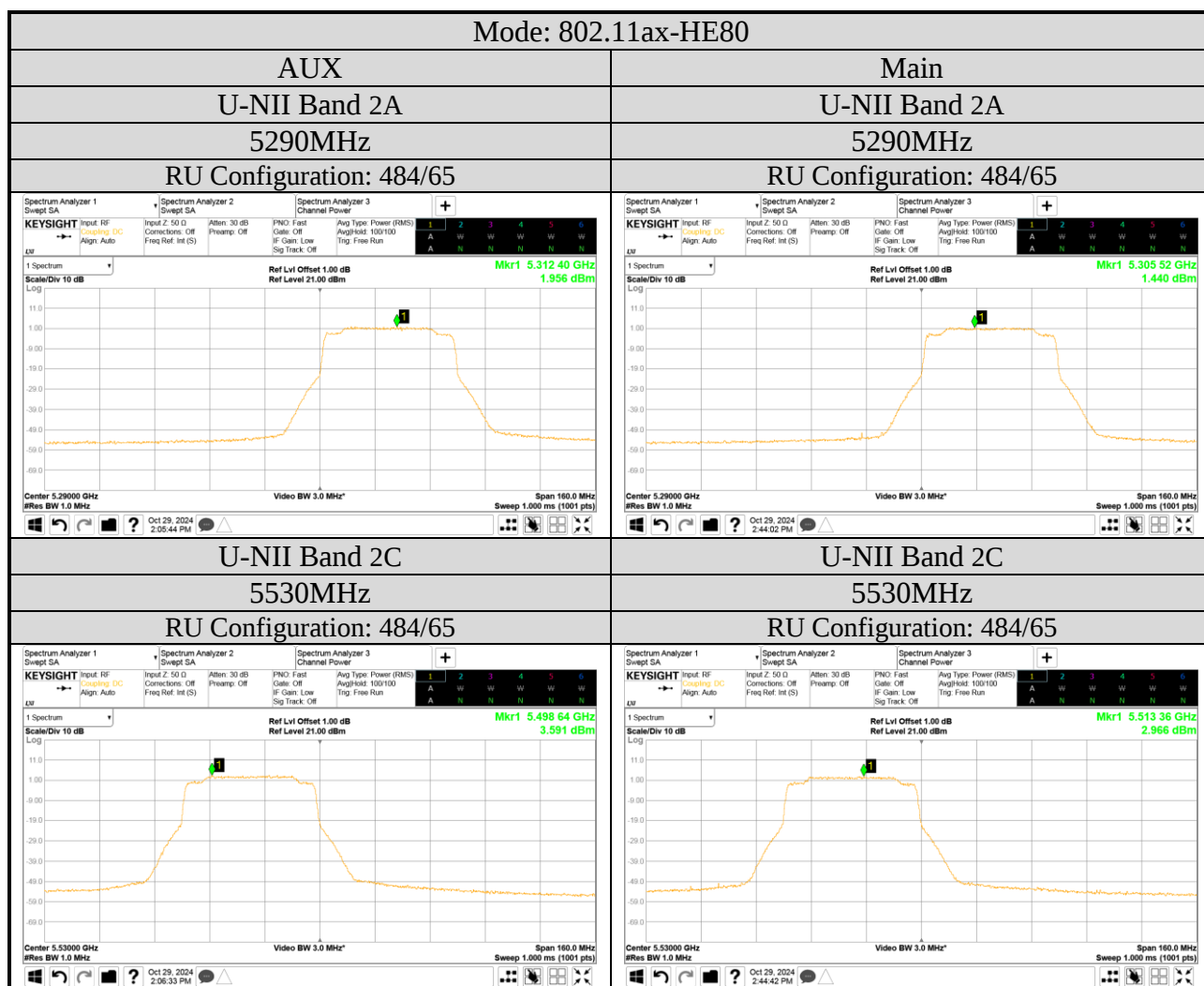
Note: We only presented max result (worst case) plots for each test mode



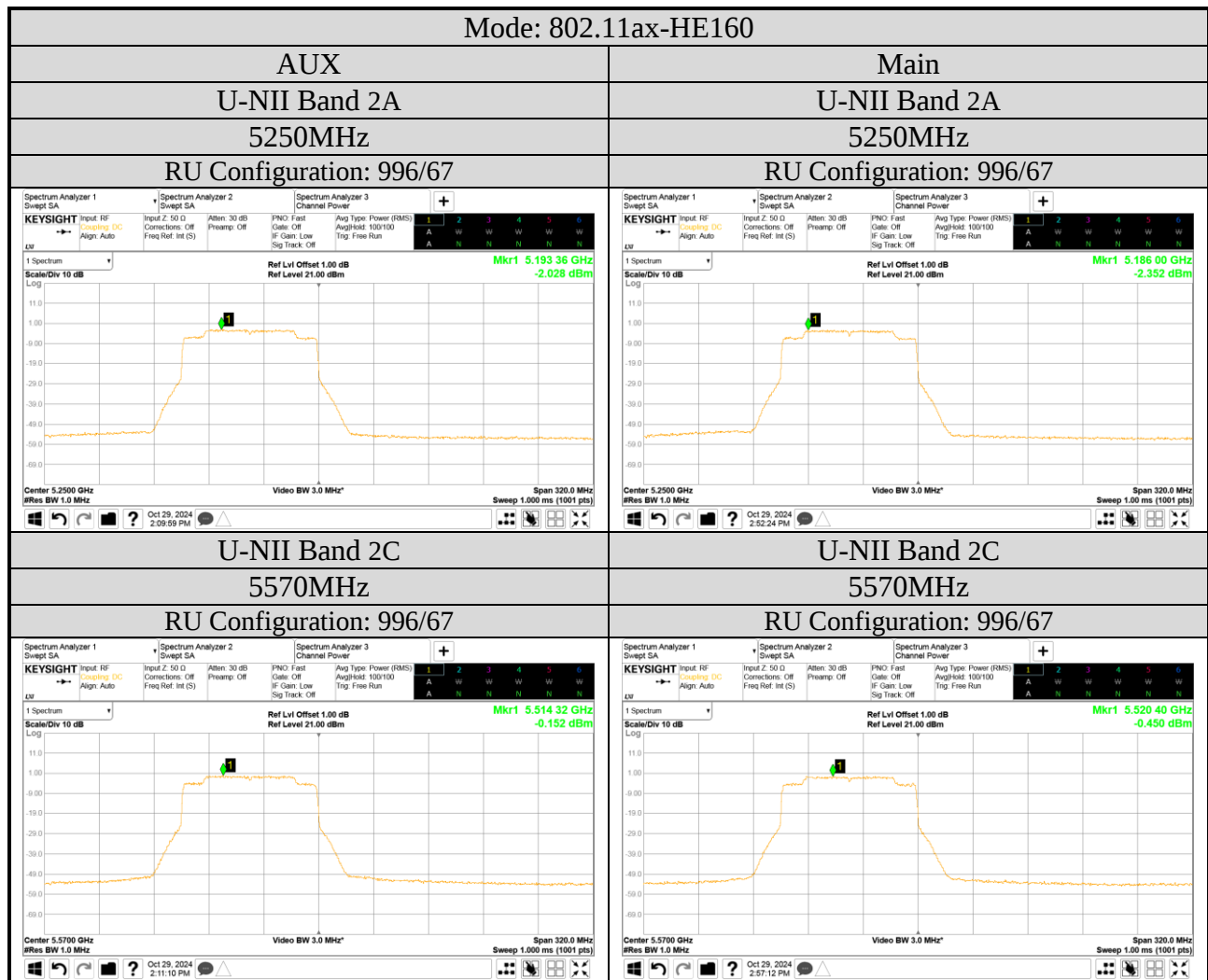
Note: We only presented max result (worst case) plots for each test mode



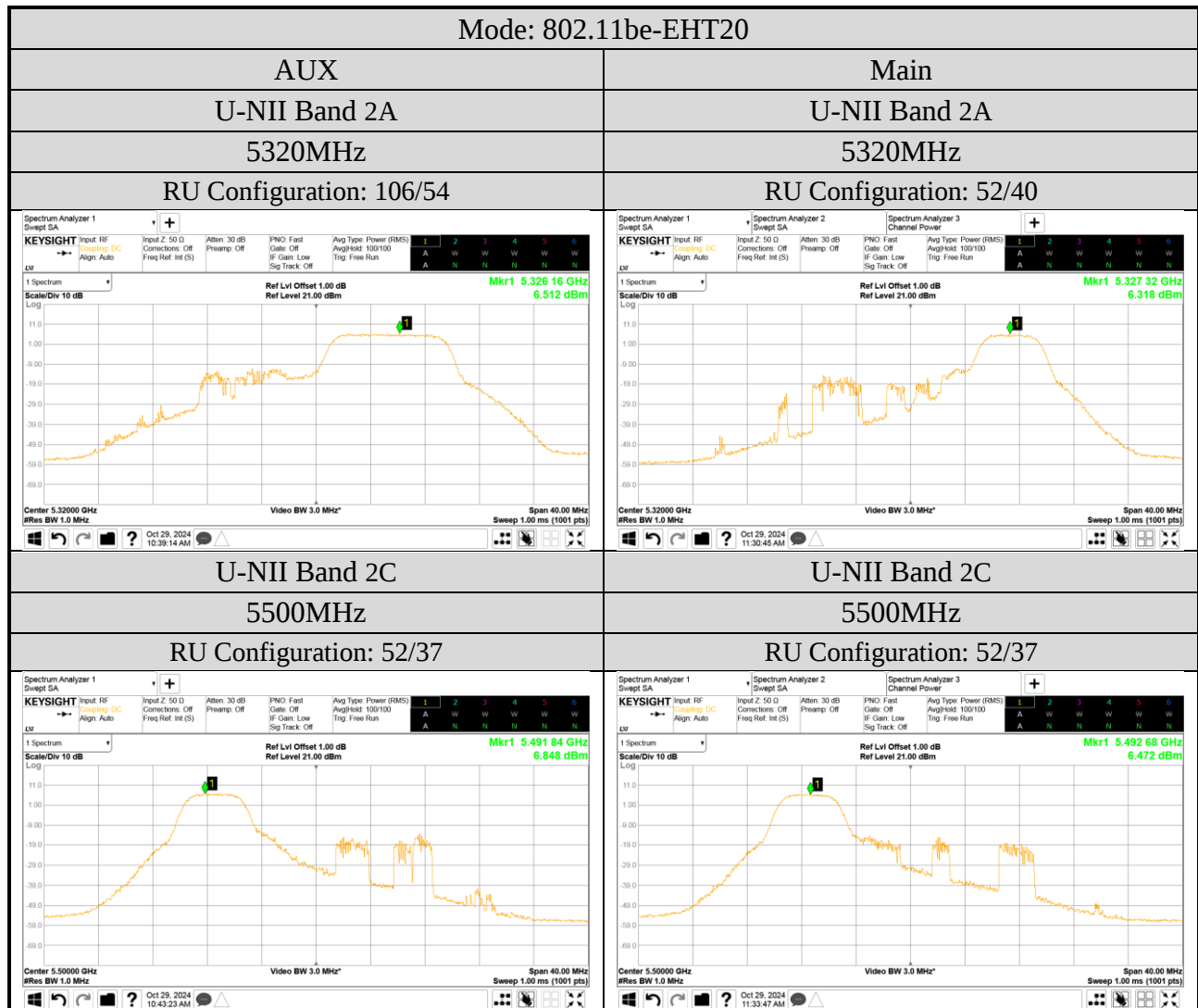
Note: We only presented max result (worst case) plots for each test mode



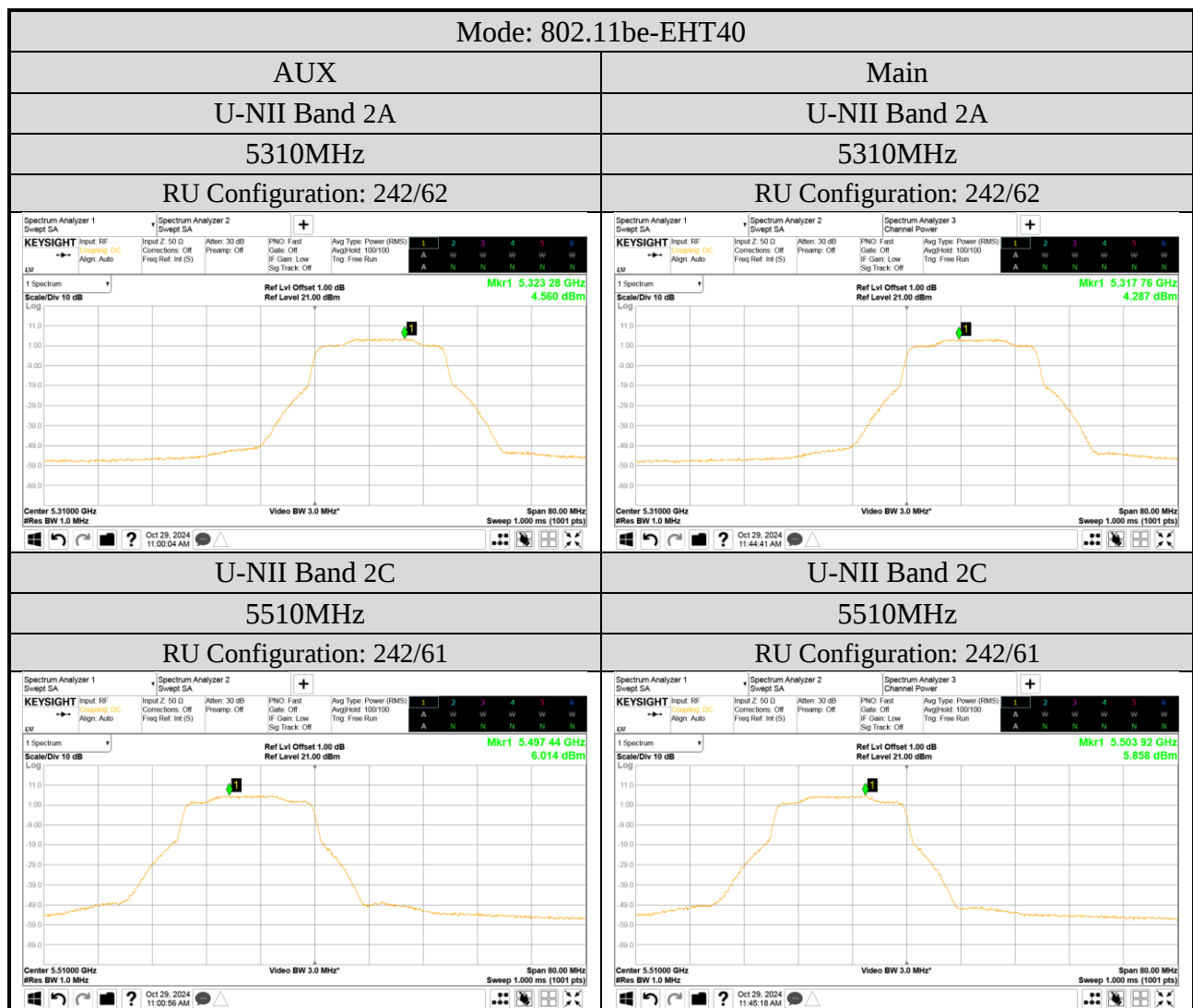
Note: We only presented max result (worst case) plots for each test mode



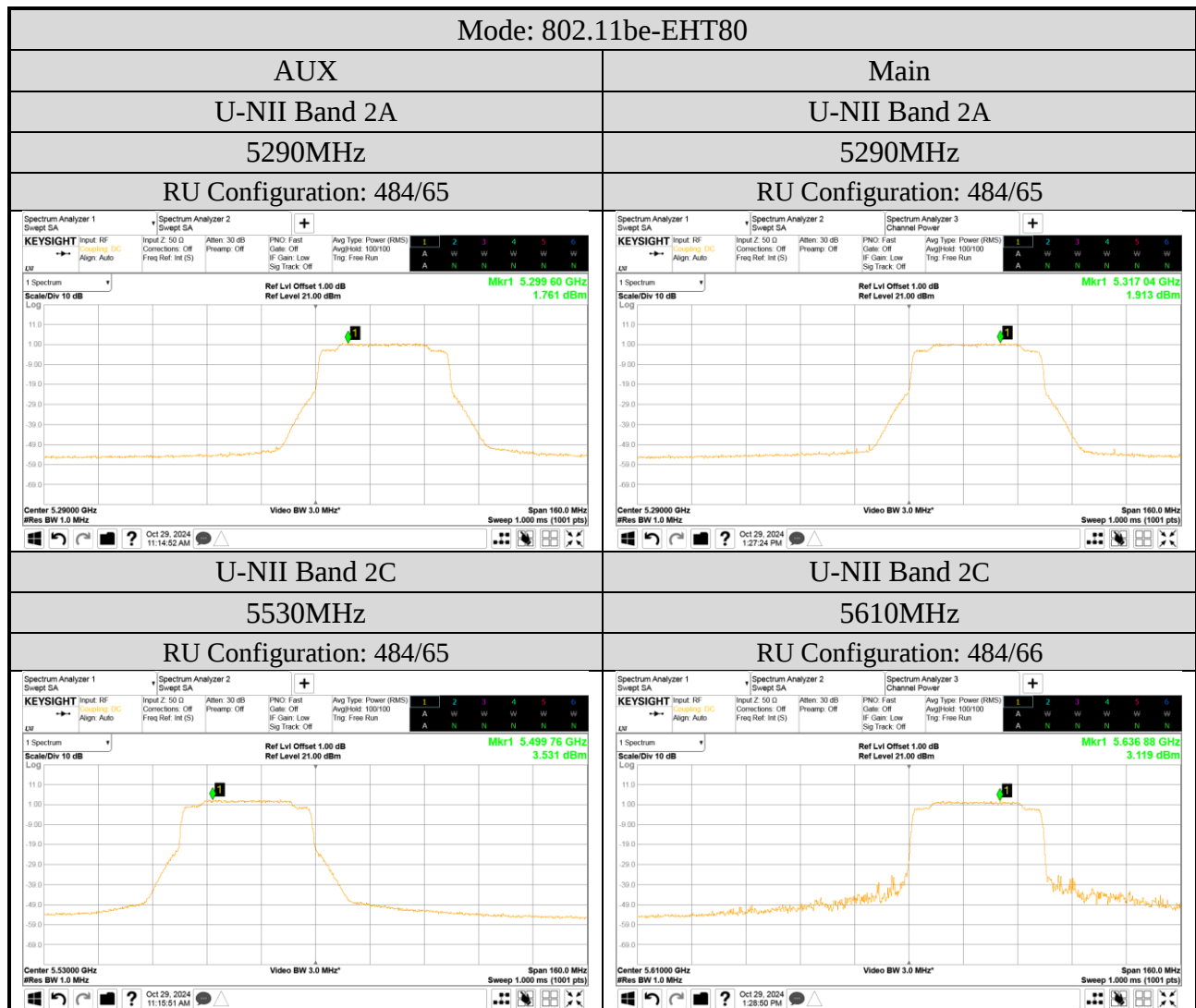
Note: We only presented max result (worst case) plots for each test mode



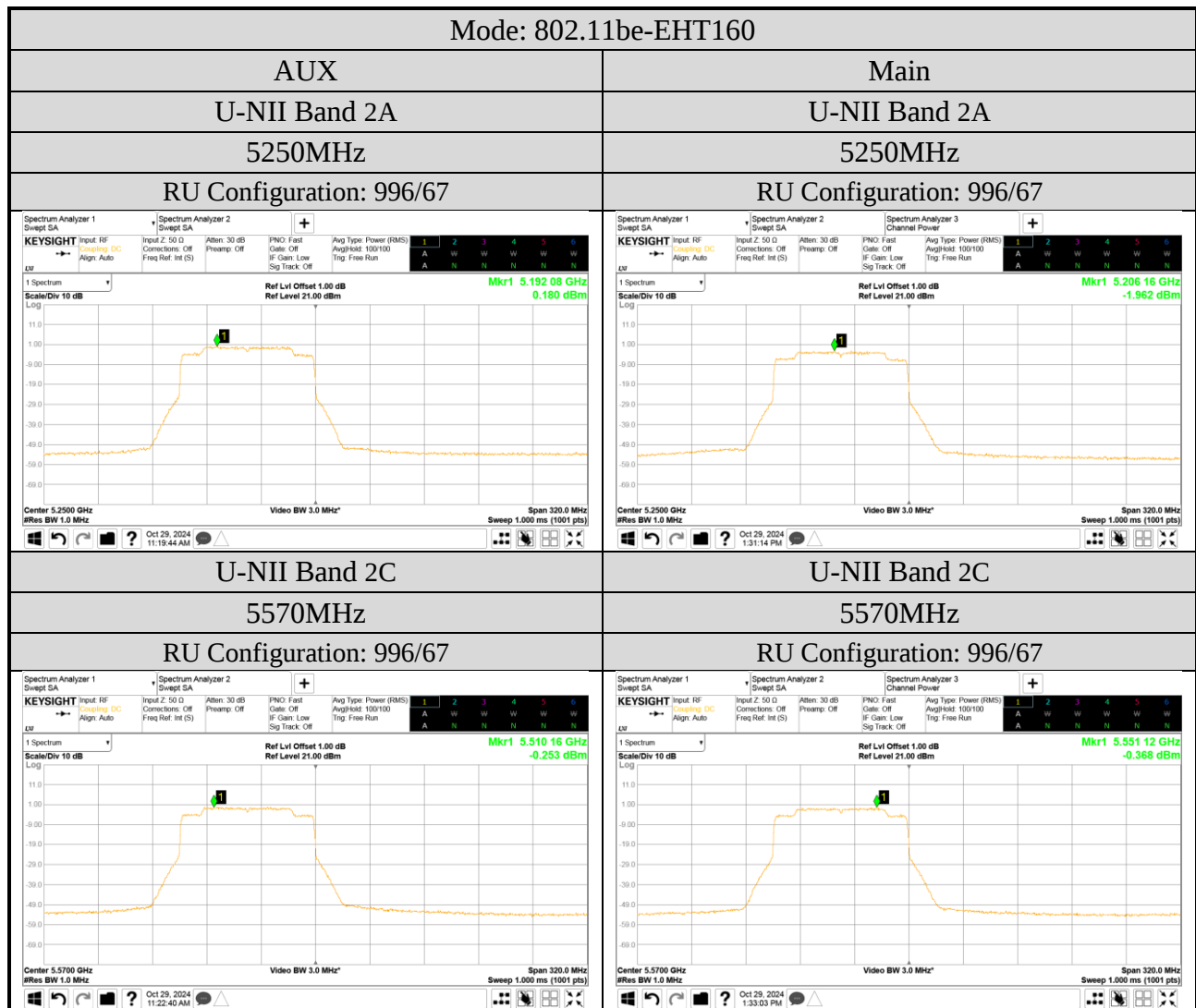
Note: We only presented max result (worst case) plots for each test mode



Note: We only presented max result (worst case) plots for each test mode



Note: We only presented max result (worst case) plots for each test mode



Note: We only presented max result (worst case) plots for each test mode

A.5. FREQUENCY STABILITY

Test Date	2024/11/01	Temp./Hum.	24°C/60%
Test Voltage	AC 120V 60Hz (Via AC Adapter)	Tested By	Kuper Hsu

A.5.1. Frequency stability Result

Temperature (°C)	Voltage (Vac)	Centre Frequency (MHz)	Measurement Value (MHz)	Frequency Stability (ppm)
25	120	5500	5500.021	3.818
-30	102		5499.992	-1.455
	138		5500.028	5.091
-20	102		5499.974	-4.727
	138		5499.989	-2.000
-10	102		5499.970	-5.455
	138		5499.995	-0.909
0	102		5500.012	2.182
	138		5500.026	4.727
10	102		5500.008	1.455
	138		5500.001	0.182
20	102		5500.015	2.727
	138		5499.978	-4.000
30	102		5499.973	-4.909
	138		5499.975	-4.545
40	102		5500.005	0.909
	138		5500.017	3.091
50	102		5499.986	-2.545
	138		5499.983	-3.091