

A.4 MAXIMUM OUTPUT POWER

Test Date	2021/06/29 ~ 07/20	Temp./Hum.	23 ~ 24°C/50 ~ 52%
Cable Loss	1dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.4.1 Average Output Power

Mode	U-NII Band	Centre Frequency (MHz)	Average Output Power(dBm)		10log (1/X)	Max Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11a	I	5180	17.7	17.54	N/A	17.70	0.059	< 250 mW (24 dBm)
		5200	18.64	18.37		18.64	0.073	
		5240	19.16	18.88		19.16	0.082	
	2A	5260	19.01	18.78		19.01	0.080	
		5300	18.53	18.76		18.76	0.075	
		5320	18.04	18.15		18.15	0.065	
	2C	5500	18.18	18.35		18.35	0.068	
		5580	19.3	19.65		19.65	0.092	
		5700	17.91	18.16		18.16	0.065	
		5720	19.95	19.21		19.95	0.099	
	III	5745	19.83	19.62		19.83	0.096	< 1 W (30 dBm)
		5785	19.38	19.79		19.79	0.095	
		5825	19.51	19.45		19.51	0.089	

Note: The results have been included cable loss.

Mode	U-NII Band	Centre Frequency (MHz)	Average Output Power(dBm)		10log (1/X)	Total Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11n-HT20	I	5180	15.29	15.39	N/A	18.35	0.068	< 250 mW (24 dBm)
		5200	15.96	15.81		18.90	0.078	
		5240	16.45	15.87		19.18	0.083	
	2A	5260	16.44	15.81		19.15	0.082	
		5300	16.25	16.09		19.18	0.083	
		5320	15.32	15.24		18.29	0.067	
	2C	5500	15.86	15.44		18.67	0.074	
		5580	17.39	17.29		20.35	0.108	
		5700	15.11	14.02		17.61	0.058	
		5720	17.32	16.87		20.11	0.103	
	III	5745	17.03	17.42		20.24	0.106	
		5785	17.10	17.05		20.09	0.102	
5825		17.05	17.30	20.19	0.104			
802.11n-HT40	I	5190	15.42	15.56	N/A	18.50	0.071	< 250 mW (24 dBm)
		5230	16.36	15.51		18.97	0.079	
	2A	5270	16.12	16.10		19.12	0.082	
		5310	14.47	14.62		17.56	0.057	
	2C	5510	14.88	14.58		17.74	0.059	
		5550	15.98	15.39		18.71	0.074	
		5670	17.41	16.41		19.95	0.099	
		5710	17.63	17.71		20.68	0.117	
	III	5755	17.41	17.86		20.65	0.116	
		5795	17.46	17.52		20.50	0.112	
802.11ac-VHT80	I	5210	16.01	15.18	N/A	18.63	0.073	< 250 mW (24 dBm)
	2A	5290	14.76	14.42		17.60	0.058	
		5530	15.43	15.13		18.29	0.067	
	2C	5610	18.10	16.82		20.52	0.113	
		5690	17.86	17.58		20.73	0.118	
	III	5775	16.35	16.17		19.27	0.085	
	802.11ac-VHT160	I/ 2A	5250	12.07		11.48	N/A	
2C		5570	11.71	11.01	14.38	0.027		

Note: The results have been included cable loss.

Mode	U-NII Band	Centre Frequency (MHz)	Average Output Power(dBm)		10log (1/X)	Total Average Output Power		Limit
			Chain 0	Chain 1		(dBm)	(W)	
802.11ax-HE20	I	5180	15.58	14.89	N/A	18.26	0.067	< 250 mW (24 dBm)
		5200	16.07	16.15		19.12	0.082	
		5240	16.14	15.97		19.07	0.081	
	2A	5260	16.36	15.66		19.03	0.080	
		5300	16.14	15.94		19.05	0.080	
		5320	15.13	14.90		18.03	0.064	
	2C	5500	15.69	15.21		18.47	0.070	
		5580	17.04	16.70		19.88	0.097	
		5700	14.80	14.30		17.57	0.057	
		5720	17.37	16.93		20.17	0.104	
	III	5745	16.68	17.07		19.89	0.097	
		5785	17.18	17.11		20.16	0.104	
5825		16.66	17.12	19.91	0.098			
802.11ax-HE40	I	5190	15.38	14.83	N/A	18.12	0.065	< 250 mW (24 dBm)
		5230	15.98	16.03		19.02	0.080	
	2A	5270	16.24	15.98		19.12	0.082	
		5310	14.23	14.20		17.23	0.053	
		5510	14.60	14.07		17.35	0.054	
	2C	5550	15.30	15.18		18.25	0.067	
		5670	16.95	15.97		19.50	0.089	
		5710	17.62	16.70		20.19	0.104	
	III	5755	17.23	17.06		20.16	0.104	
5795		17.15	17.02	20.10	0.102			
802.11ax-HE80	I	5210	15.47	15.36	N/A	18.43	0.070	< 250 mW (24 dBm)
	2A	5290	14.25	13.96		17.12	0.052	
		5530	15.26	14.57		17.94	0.062	
	2C	5610	17.60	16.67		20.17	0.104	
		5690	17.79	17.37		20.60	0.115	
	III	5775	16.23	15.63		18.95	0.079	
	802.11ax-HE160	I/ 2A	5250	11.50		11.40	N/A	
2C		5570	11.32	10.60	13.99	0.025		

Note: The results have been included cable loss.

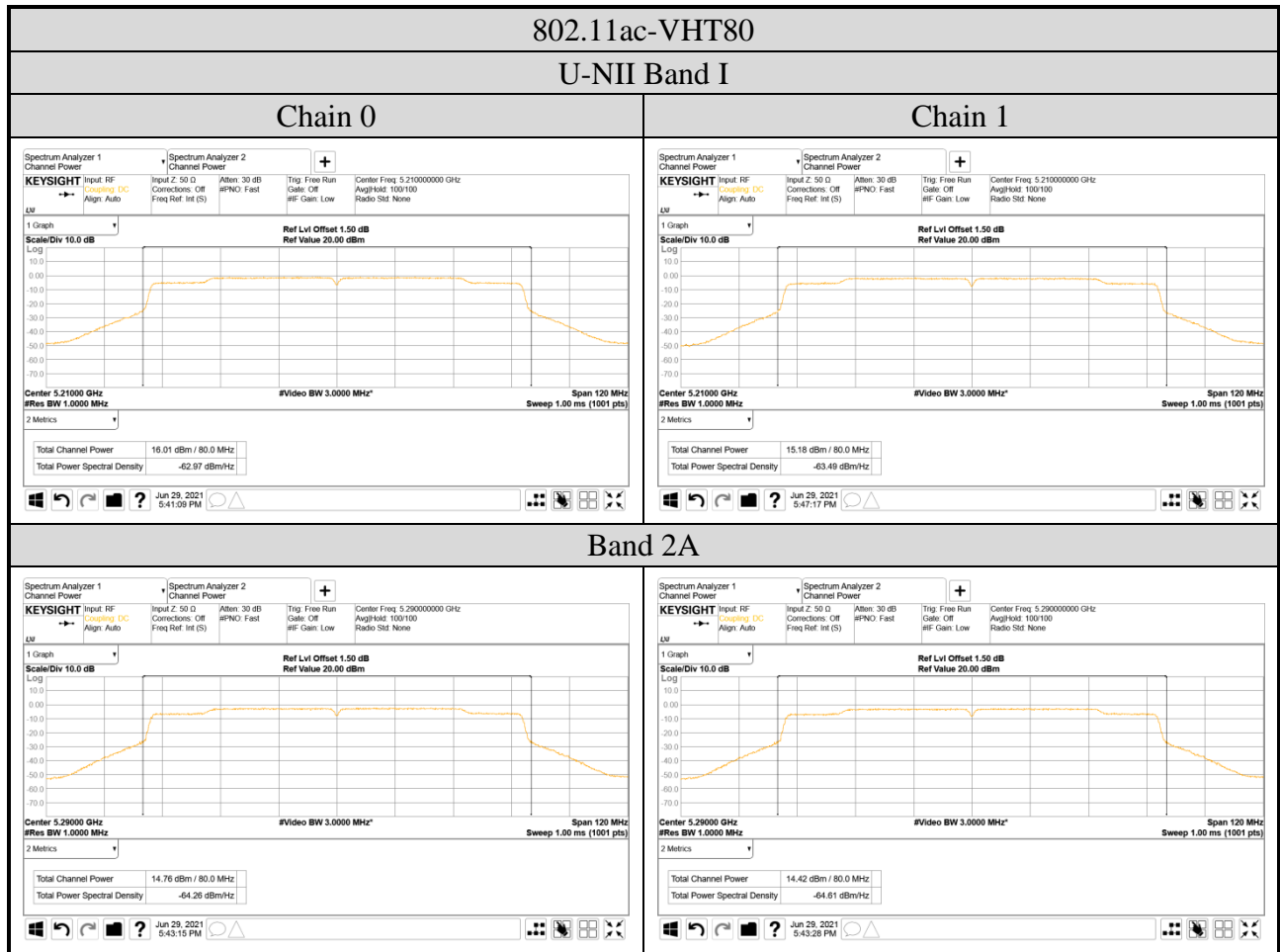
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				Chain 0	Chain 1		(dBm)	(W)	
802.11ax-HE20	I	5180	26/0	11.17	11.17	N/A	14.18	0.026	< 250 mW (24 dBm)
			52/37	14.39	14.25		17.33	0.054	
			106/53	14.99	15.64		18.34	0.068	
	2A	5320	26/8	11.38	11.67		14.54	0.028	
			52/40	11.94	11.42		14.70	0.030	
			106/54	15.08	15.57		18.34	0.068	
	2C	5500	26/0	11.36	11.08		14.23	0.026	
			52/37	14.68	13.99		17.36	0.054	
			106/53	15.55	15.34		18.46	0.070	
		5700	26/8	11.85	11.16		14.53	0.028	
			52/40	12.82	12.14		15.50	0.035	
			106/54	14.58	13.93		17.28	0.053	
	III	5745	26/0	11.54	11.01		14.29	0.027	
			52/37	14.69	13.86		17.31	0.054	
			106/53	16.76	17.00		19.89	0.097	
		5825	26/8	16.50	16.05		19.29	0.085	
			52/40	16.51	16.80		19.67	0.093	
			106/54	16.47	16.46		19.48	0.089	
802.11ax-HE40	I	5190	242/61	15.70	14.62	18.20	0.066	< 250 mW (24 dBm)	
	2A	5310	242/62	14.08	14.67	17.40	0.055		
	2C	5510	242/61	15.04	14.39	17.74	0.059		
		5670	242/62	17.28	16.20	19.78	0.095		
	III	5755	242/61	16.70	16.73	19.73	0.094	< 1 W (30 dBm)	
		5795	242/62	16.93	16.30	19.64	0.092		

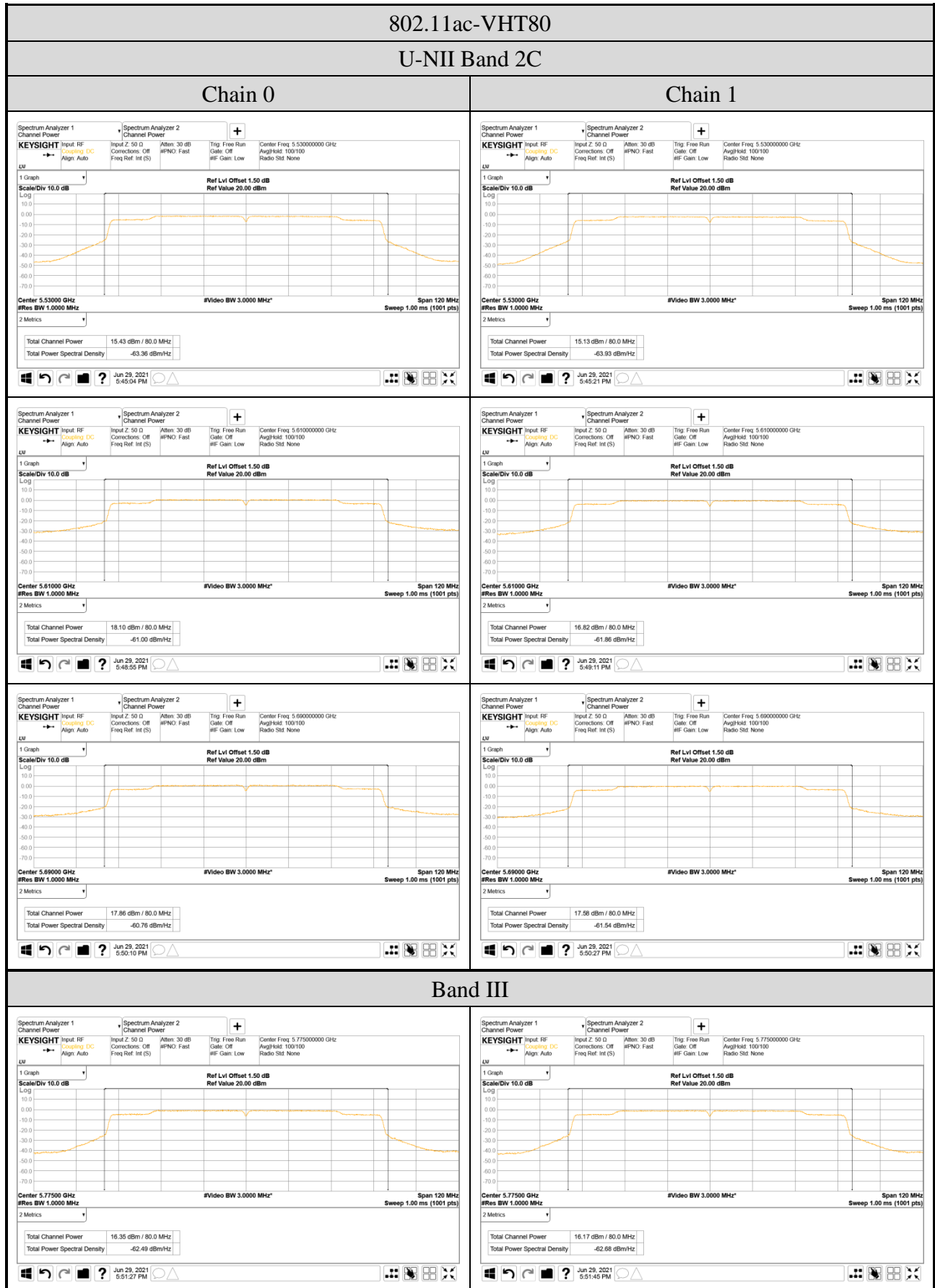
Note: The results have been included cable loss.

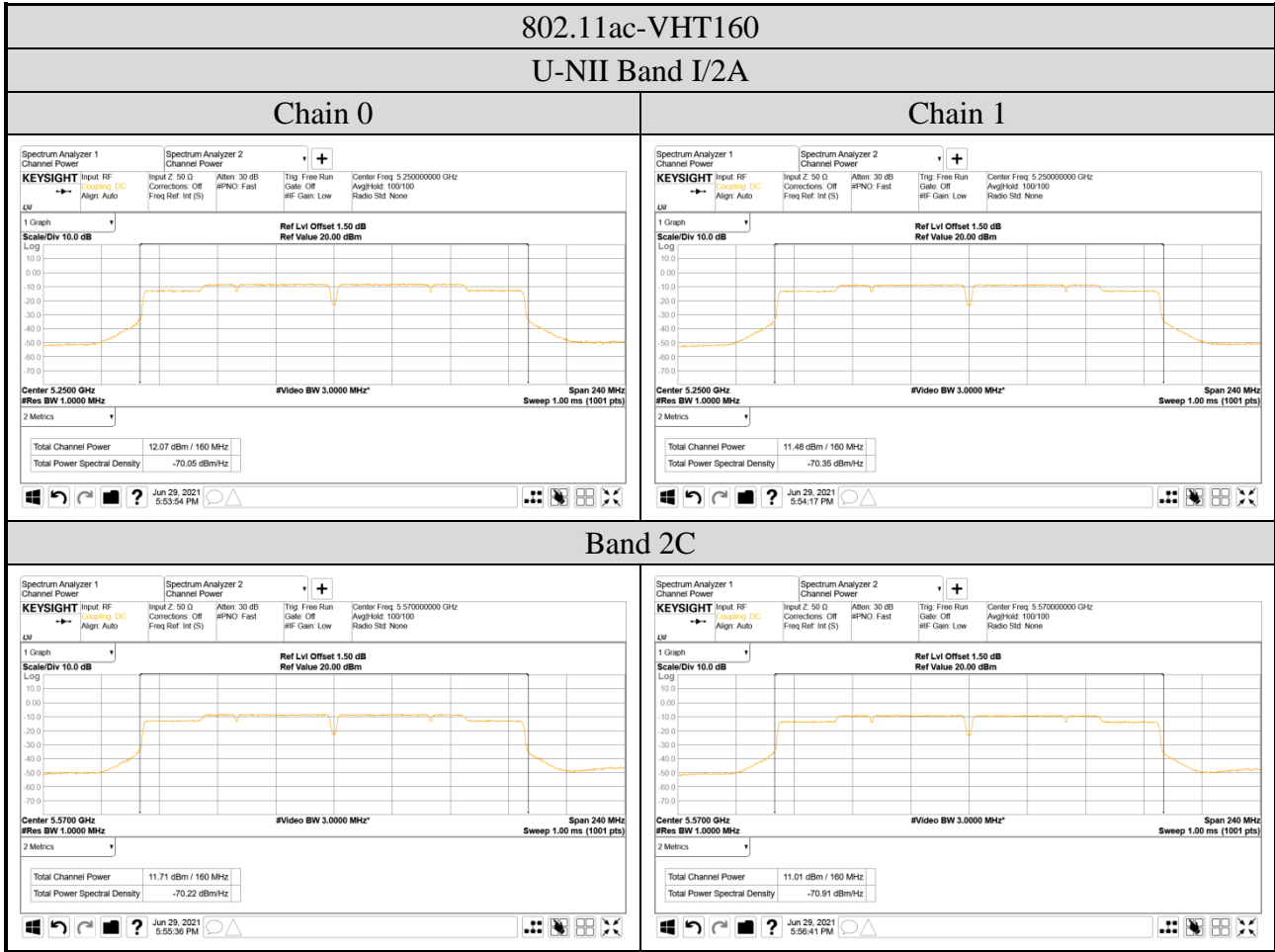
Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Average Output Power(dBm)		10log (1/X)	Total Average Output Power		Limit
				Chain 0	Chain 1		(dBm)	(W)	
802.11ax-HE80	I	5210	484/65	15.20	15.14	N/A	18.18	0.066	< 250 mW (24 dBm)
	2A	5290	484/66	11.74	12.21		14.99	0.032	
	2C	5530	484/65	13.64	13.49		16.58	0.045	
		5610	484/66	15.76	15.39		18.59	0.072	
	III	5775	484/65	15.63	15.50		18.58	0.072	< 1 W (30 dBm)
			484/66	15.86	14.96		18.44	0.070	
802.11ax-HE160	I/2A	5250	996/67	10.53	10.65	N/A	13.60	0.023	< 250 mW (24 dBm)
			996/S67	10.19	10.31		13.26	0.021	
	2C	5570	996/67	10.12	9.33		12.75	0.019	
			996/S67	9.94	9.59		12.78	0.019	

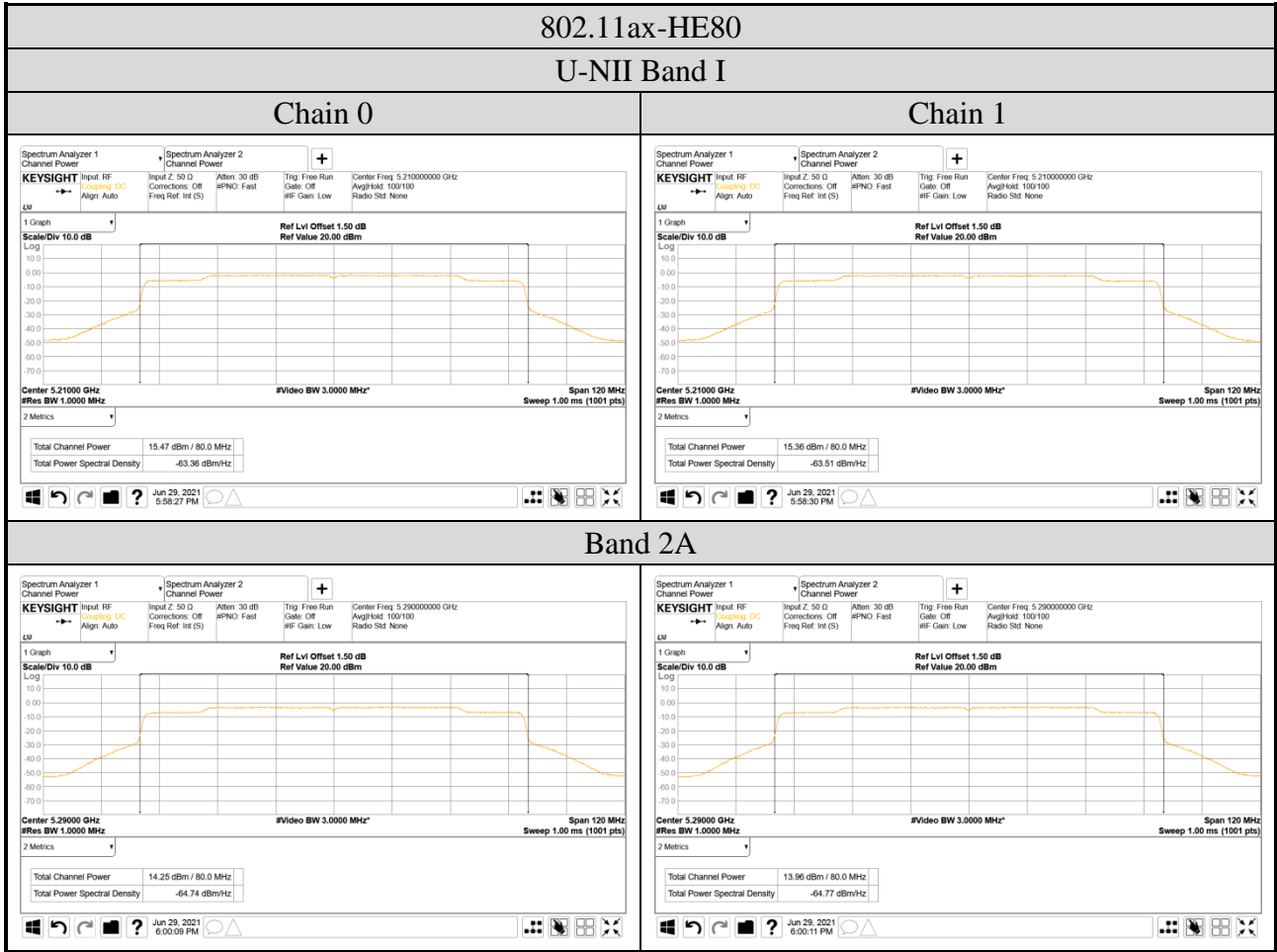
Note: The results have been included cable loss.

A.4.2 Measurement Plots







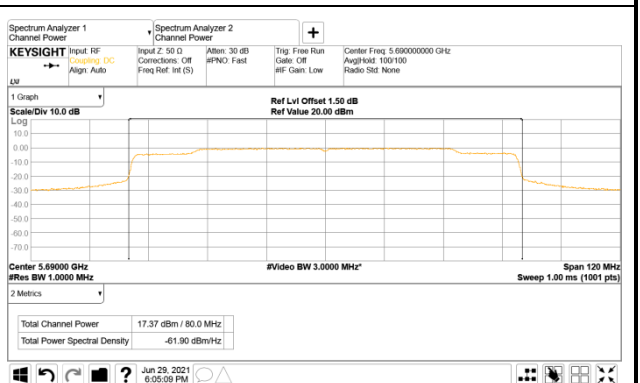
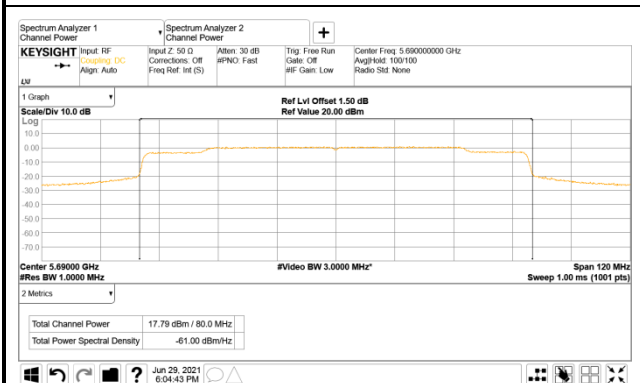
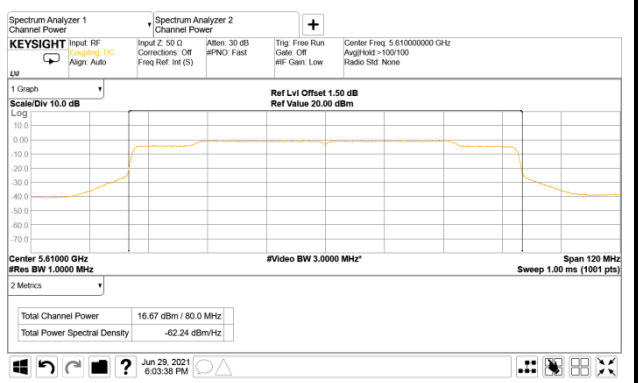
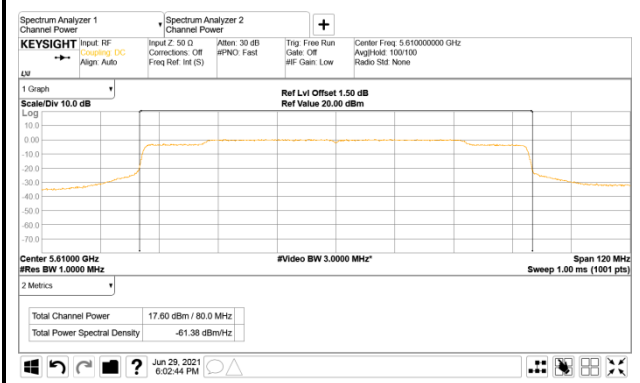
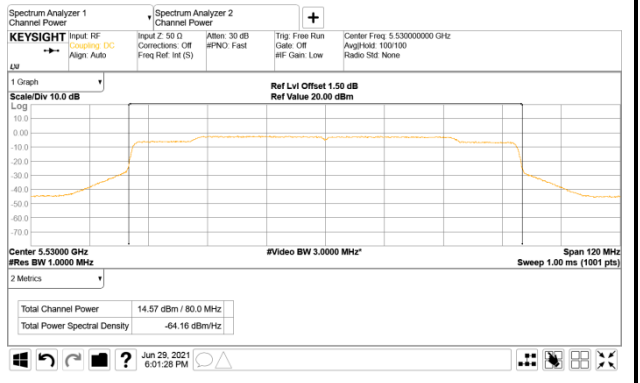
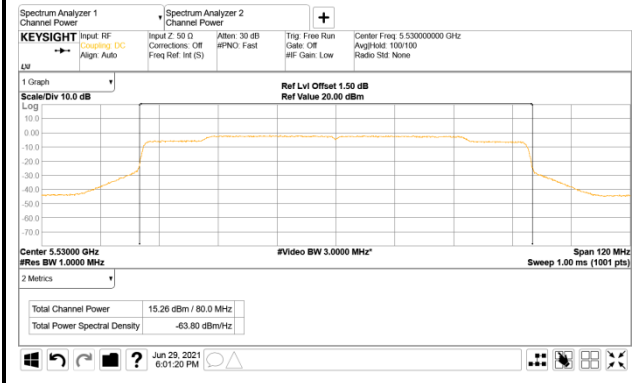


802.11ax-HE 80

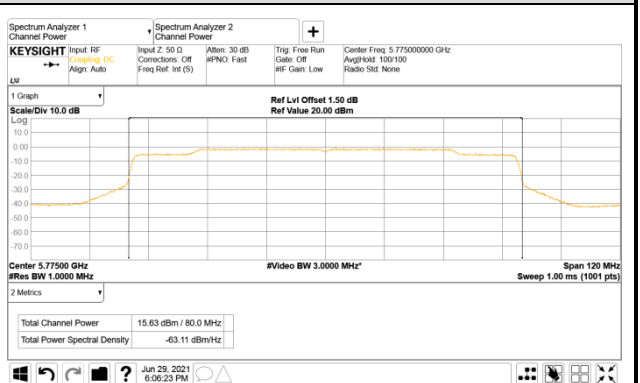
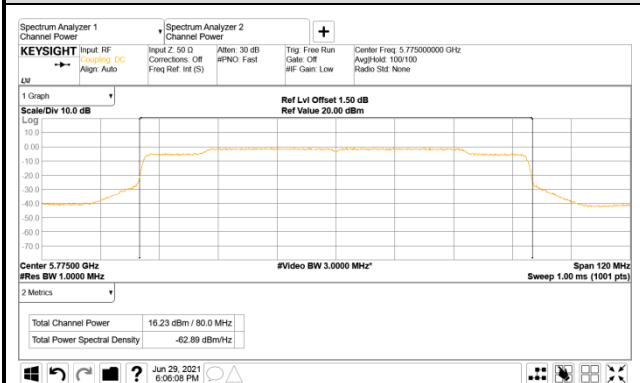
U-NII Band 2C

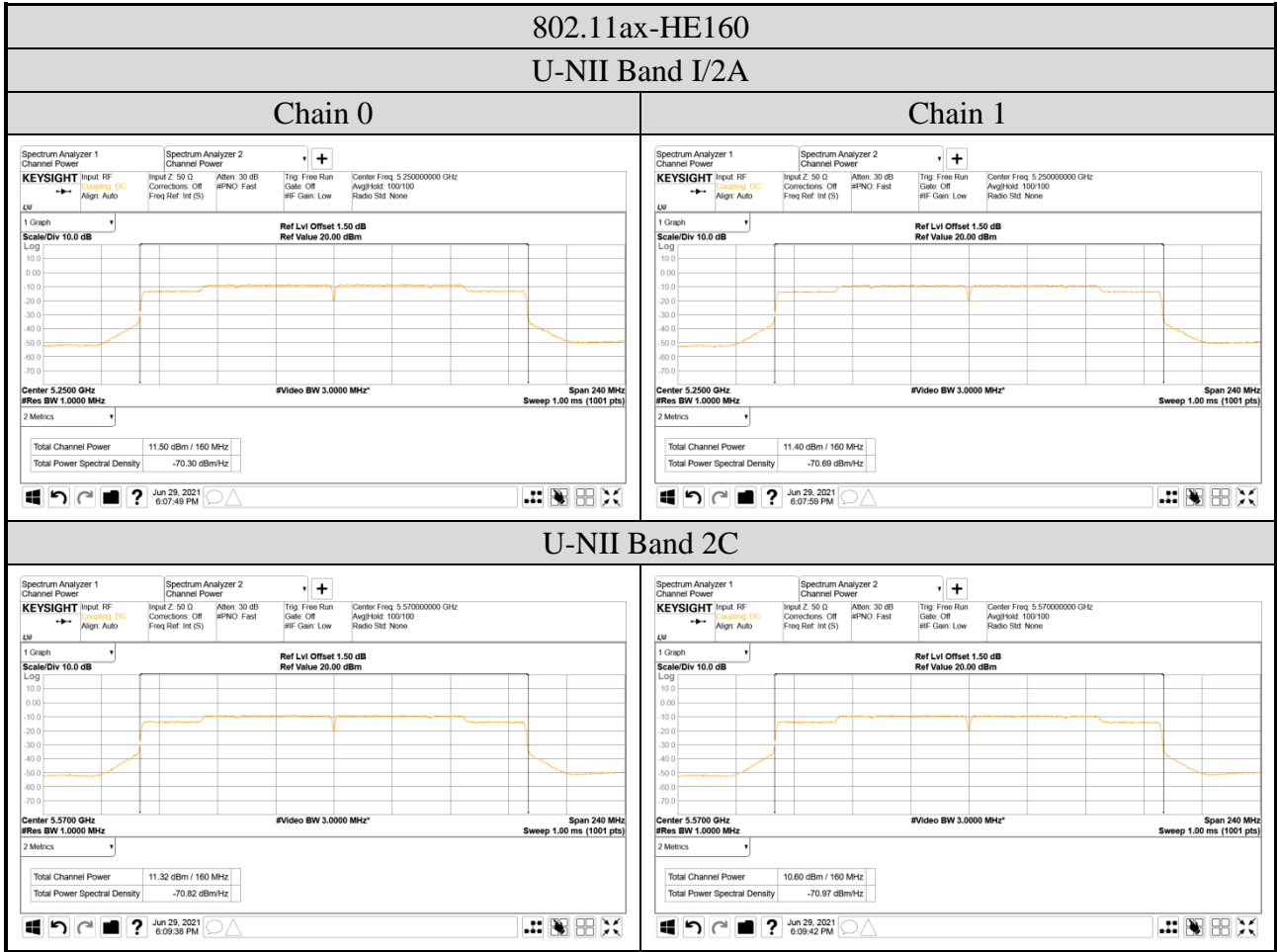
Chain 0

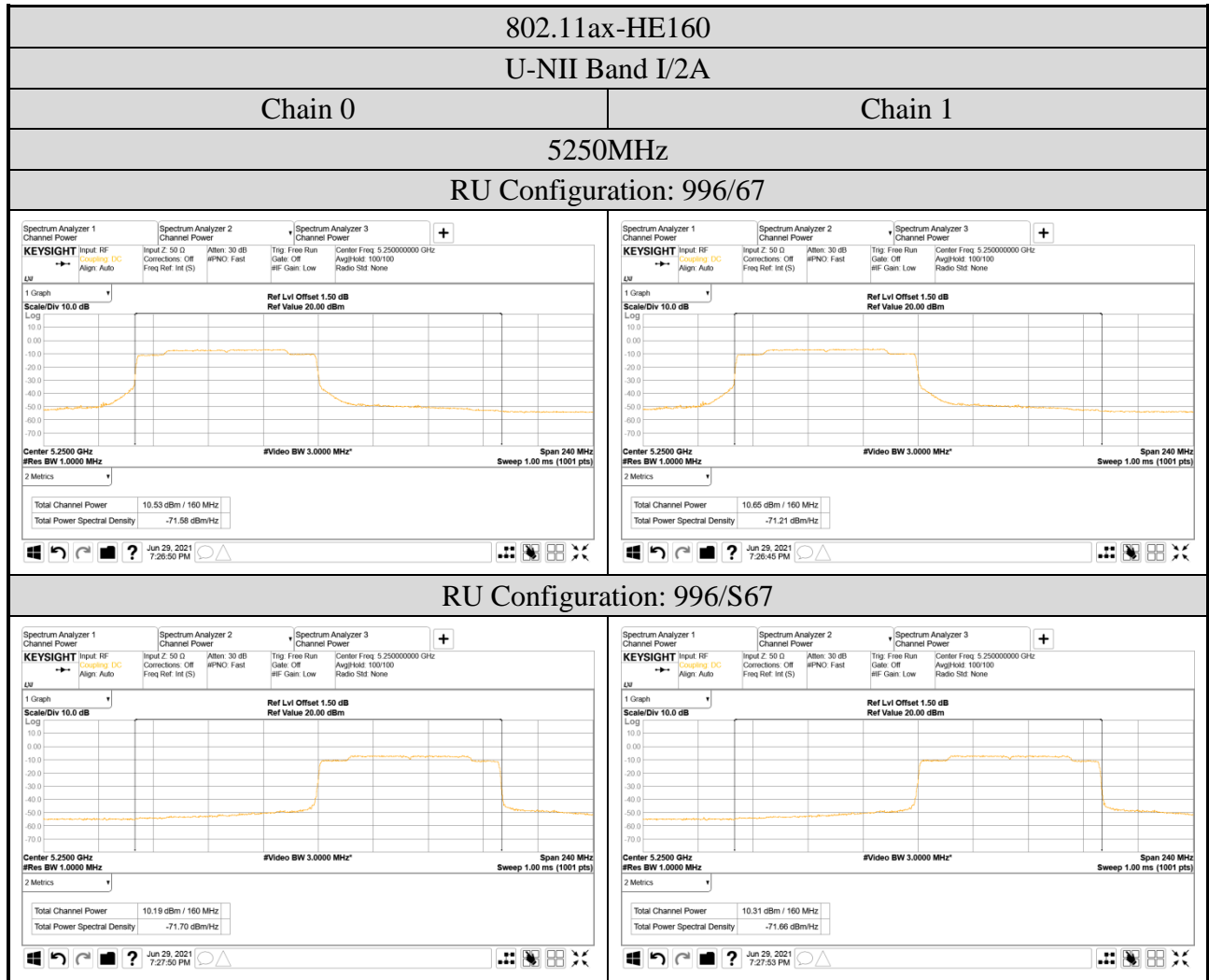
Chain 1

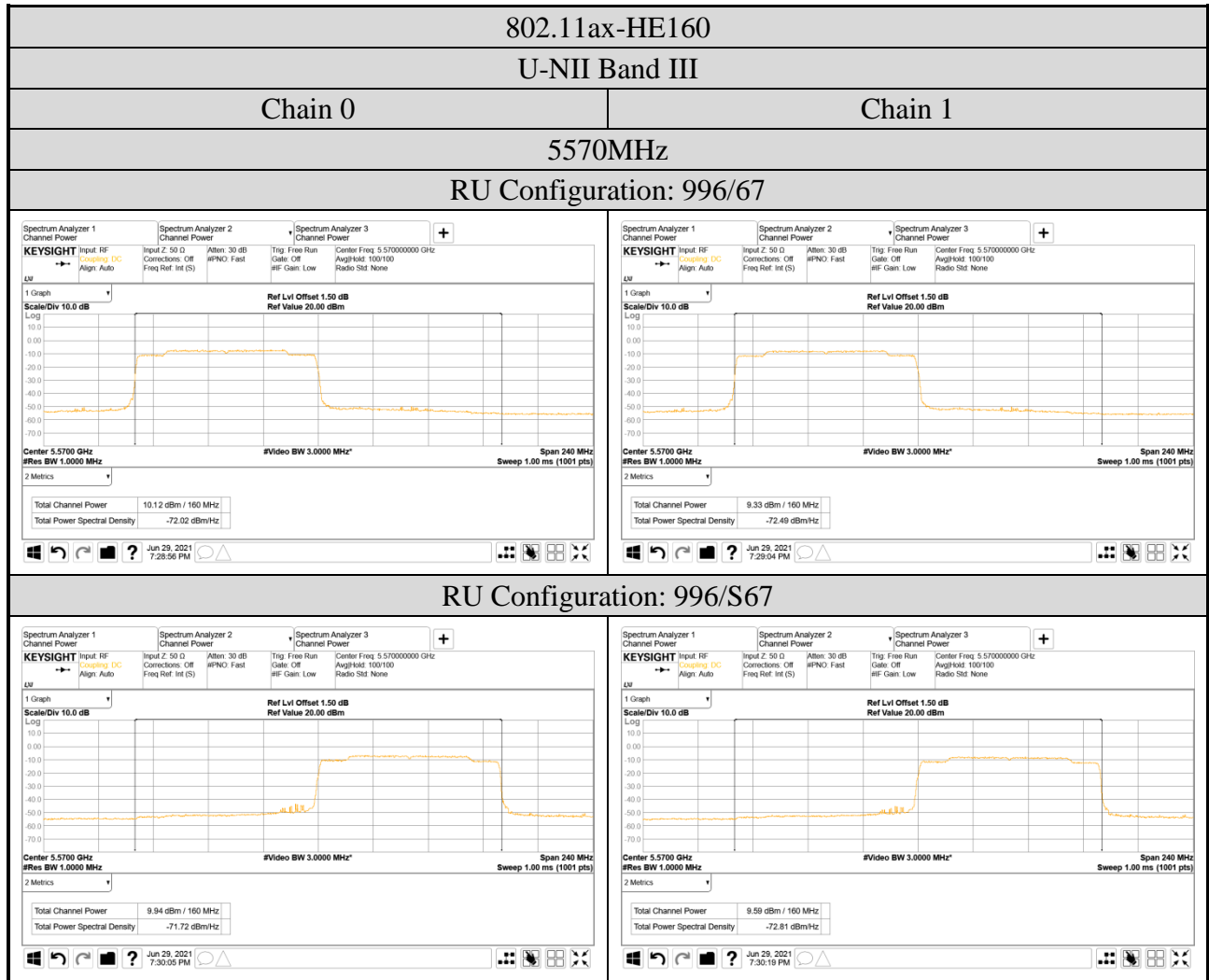


U-NII Band III









A.5 POWER SPECTRAL DENSITY

Test Date	2021/07/20	Temp./Hum.	24°C/50%
Cable Loss	1dB	Tested By	Kuper Hsu
Test Voltage	AC 120V 60Hz (Via AC Adapter)		
Simultaneous Factor 10 log(n) (Note: “n” is antenna number)	802.11a: 0 802.11n-HT20/40: 3 802.11ac-VHT80/160: 3 802.11ax-HE20/40/80/160: 3		

A.5.1 Power Spectral Density Result

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm)	Limit
802.11a	I	5180	5.995	11 dBm/MHz
		5200	8.381	
		5240	8.572	
	2A	5260	8.722	
		5300	8.504	
		5320	6.461	
	2C	5500	7.240	
		5580	8.925	
		5700	5.321	
		5720	8.089	
	III ^{Note2}	5745	6.389	30dBm/500 kHz
		5785	6.604	
5825		6.602		

Note 1: All results have been included cable loss and Simultaneous Factor and correct duty factor.

Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm)	Limit
802.11n-HT20	I	5180	7.625	11 dBm/MHz
		5200	8.261	
		5240	8.817	
	2A	5260	8.684	
		5300	8.504	
		5320	7.244	
	2C	5500	7.458	
		5580	9.399	
		5700	7.443	
		5720	9.777	
	III ^{Note2}	5745	7.217	30dBm/500 kHz
		5785	7.130	
5825		7.534		
802.11n-HT40	I	5190	4.627	11 dBm/MHz
		5230	5.493	
	2A	5270	5.195	
		5310	3.608	
	2C	5510	3.908	
		5550	5.102	
		5670	6.384	
	5710	6.748	30dBm/500 kHz	
		5755		5.019
	III ^{Note2}	5795	4.755	
802.11ac-VHT80		I	5210	1.905
	2A	5290	0.882	
		2C	5530	1.569
	5610		3.679	
	5690	4.120	30dBm/500 kHz	
		5775		0.250
III ^{Note2}	5775	0.250		
	802.11ac-VHT160	I/2A	5250	-4.887
2C		5570	-5.018	

Note 1: All results have been included cable loss and Simultaneous Factor.

Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm)	Limit
802.11ax-HE20	I	5180	7.961	11 dBm/MHz
		5200	8.401	
		5240	8.387	
	2A	5260	8.292	
		5300	8.652	
		5320	7.209	
	2C	5500	7.778	
		5580	9.290	
		5700	7.077	
		5720	9.425	
III ^{Note2}	5745	5.924	30dBm/500 kHz	
	5785	6.412		
	5825	5.914		
802.11ax-HE40	I	5190	4.591	11 dBm/MHz
		5230	5.102	
	2A	5270	5.403	
		5310	3.291	
	2C	5510	3.804	
		5550	4.363	
		5670	5.940	
		5710	7.061	
	III ^{Note2}	5755	3.253	30dBm/500 kHz
		5795	3.274	
802.11ax-HE80	I	5210	2.221	11 dBm/MHz
	2A	5290	0.528	
	2C	5530	1.319	
		5610	3.671	
		5690	3.906	
	III ^{Note2}	5775	-1.149	30dBm/500 kHz
802.11ax-HE160	I/2A	5250	-5.340	11 dBm/MHz
	2C	5570	-5.218	

Note 1: All results have been included cable loss and Simultaneous Factor.

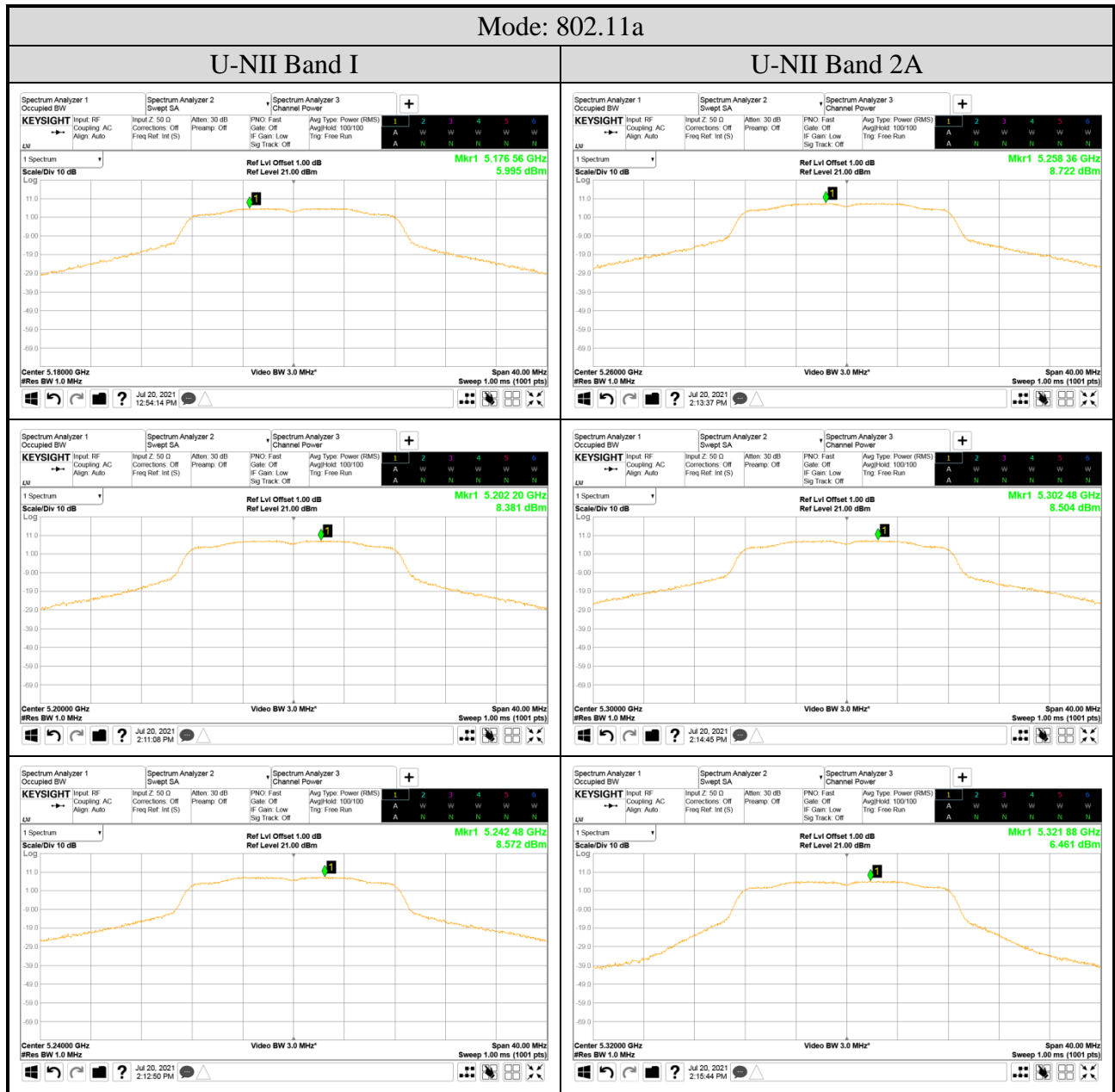
Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

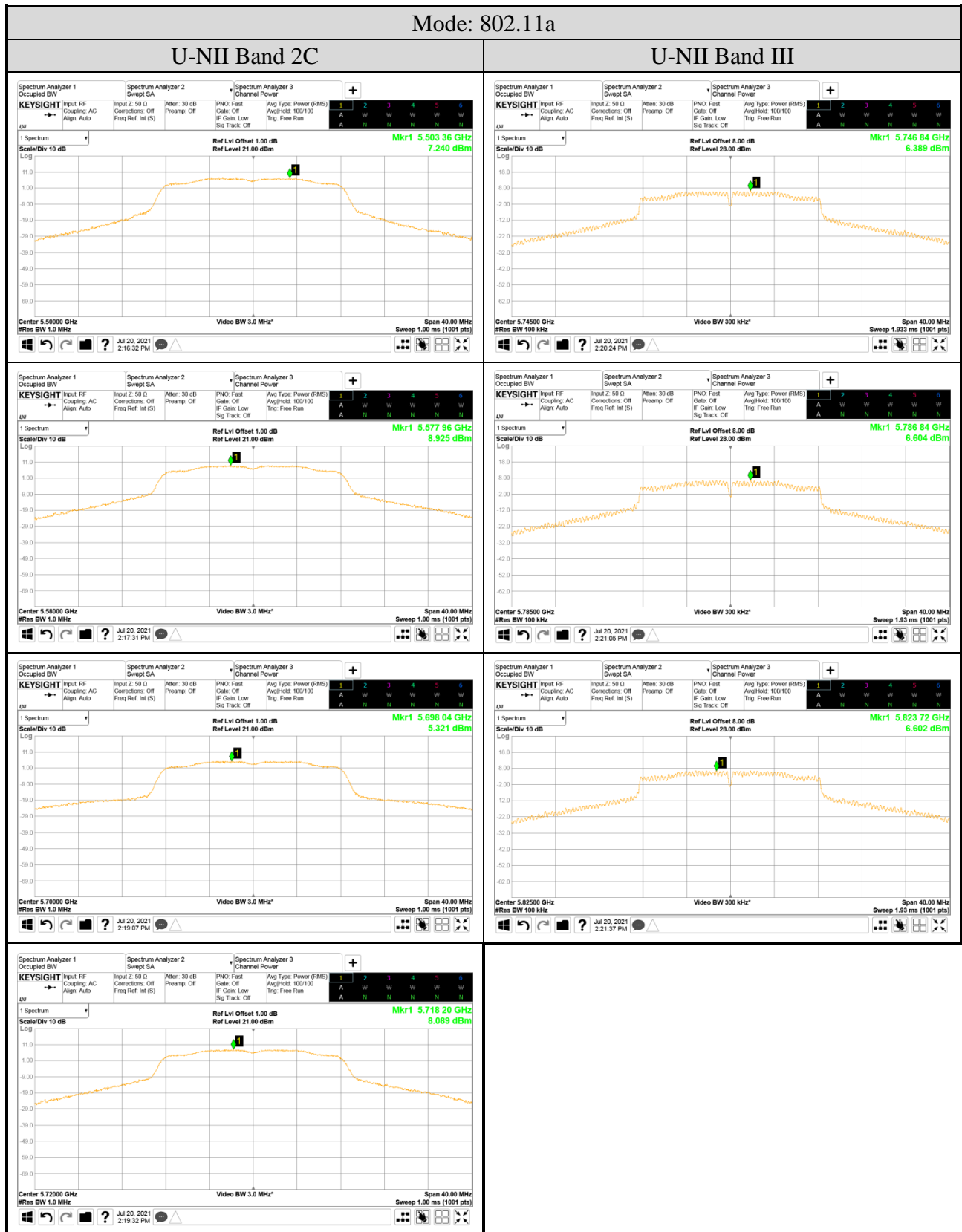
Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm)	Limit	
802.11ax-HE20	I	5180	26/0	9.910	11 dBm/MHz	
			52/37	10.034		
			106/53	8.111		
	2A	5320	26/8	10.057		
			52/40	7.753		
			106/54	7.960		
	2C	5500	26/0	10.629		
			52/37	10.833		
			106/53	9.306		
		5700	26/8	10.045		
			52/40	8.252		
			106/54	7.211		
	III ^{Note2}	5745	26/0	6.110		30dBm/500 kHz
			52/37	6.393		
			106/53	6.165		
5825		26/8	10.241			
		52/40	9.613			
		106/54	6.545			
802.11ax-HE40	I	5190	242/61	5.796	11 dBm/MHz	
	2A	5310	242/62	4.248		
	2C	5510	242/61	5.688		
		5670	242/62	6.791		
	III ^{Note2}	5755	242/61	3.531	30dBm/500 kHz	
		5795	242/62	4.129		
802.11ax-HE80	I	5210	484/65	2.373	11 dBm/MHz	
	2A	5290	484/66	-1.188		
	2C	5530	484/65	1.229		
		5610	484/66	2.566		
	III ^{Note2}	5775	484/65	-0.909	30dBm/500 kHz	
			484/66	-0.889		
802.11ax-HE160	I/2A	5250	996/67	-6.106	11 dBm/MHz	
			996/S67	-6.455		
	2C	5570	996/67	-6.596		
			996/S67	-6.613		

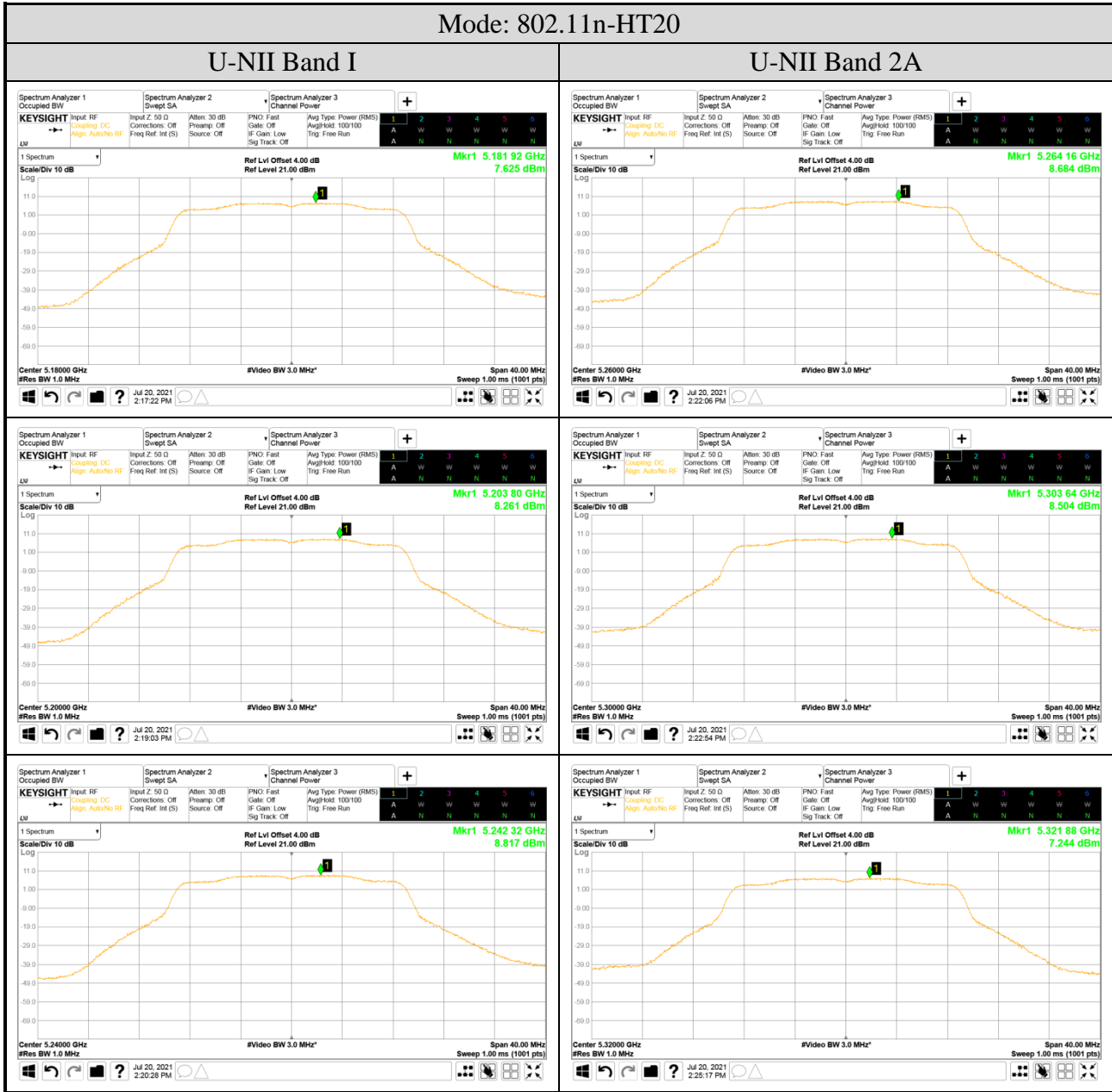
Note 1: All results have been included cable loss and Simultaneous Factor.

Note 2: BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

A.5.2 Measurement Plots







Mode: 802.11n-HT20

U-NII Band 2C

U-NII Band III

